

No. A-292



Littletown Zoo

Instructional Computing Courseware
for Apple® II Series Computers

A product from
Frames: A Reading Comprehension Series



This manual is compatible
with
the *Littletown Zoo* disk
Version 1.x

MECC warrants that it will, at its option, repair, replace, or return the purchase price of any product found by MECC to be defective in quality or for any other reason, and which is returned to MECC, postage paid. This warranty replaces and supersedes all other warranties stated or implied, including any warranty of design, merchantability, or fitness for a particular purpose or use. MECC will not be liable for any incidental, special, or consequential damages resulting from any use of or defects in the product.

MECC
3490 Lexington Avenue North
St. Paul, MN 55126-8097

ISBN 0-7929-0178-9

June 1991

Copyright ©1991 by MECC. All rights reserved. This software and manual may not be copied or transferred to another medium except as permitted by U.S. Copyright Law or as authorized by written agreement with MECC. Apple® and ProDOS® are registered trademarks of Apple Computer, Inc., of Cupertino, California. Permission is granted to reproduce the student worksheets contained in this manual.

Library of Congress Cataloging-in-Publication Data

Littletown zoo [computer file]. — Version 1.0.

1 computer disk : 3 1/2 in. + 1 manual. — (Frames)

System requirements: Apple II series computers; 128K RAM; ProDOS; BASIC; 1 disk drive; monochrome or color monitor.

Title from title screen.

Edition statement from disk label.

Copy-protected.

Audience: Grades 3-4.

Issued also on 5 1/4 in. computer disk.

Summary: A discovery-learning simulation that focuses on the processes of reading, reading comprehension, fact-finding, and problem-solving. Students assume the roles of zookeepers as they decide which three animals to add to the zoo exhibit, based on searching through data cards, zookeeper's descriptions, and letters from zoo visitors.

"A-292" — Disk label.

1. Decision-making—Study and teaching (Elementary)—Juvenile software. 2. Reading (Elementary)—Juvenile software. 3. Reading comprehension—Juvenile software. [1. Decision-making—Software. 2. Reading—Software. 3. Zoos—Software] I. Minnesota Educational Computing Corporation. II. Series. [LB1062.5] 1991 372.6 91-14776
ISBN 0-7929-0178-9

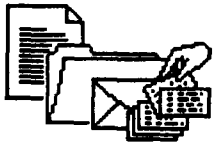
TABLE OF CONTENTS

| | |
|--|----|
| <i>Frames: A Reading Comprehension Series</i> | 1 |
| Introduction | 4 |
| The Product at a Glance | 5 |
| Step-by-Step | 6 |
| Reference | 14 |
| Management Options | 20 |
| Use in an Instructional Setting | 27 |
| <i>Littletown Zoo</i> and Your Reading Program | 27 |
| Preparing Your Students for <i>Littletown Zoo</i> | 29 |
| Integrating Other Language-Arts Activities | 31 |
| Discussion | 31 |
| Writing | 32 |
| Other Resources | 32 |
| Sample Lesson Plans | 33 |
| Introducing <i>Littletown Zoo</i> | 33 |
| Introducing <i>Littletown Zoo</i> II | 34 |
| Using <i>Littletown Zoo</i> with Individual Students | 35 |
| Using <i>Littletown Zoo</i> with Cooperative-Learning Groups | 36 |
| Discussing <i>Littletown Zoo</i> in Small Groups | 39 |
| Summarizing the <i>Littletown Zoo</i> Experience | 40 |
| Extending the <i>Littletown Zoo</i> Experience—Writing | 41 |
| Extending the <i>Littletown Zoo</i> Experience—Reading | 42 |
| Thinking Skills | 43 |
| Appendices | |
| Step-by-Step Guide | 49 |
| Semantic Map | 50 |
| Frames Worksheet | 51 |
| Animal Chart | 52 |
| Animal Form | 53 |
| Descriptions | 54 |
| Animals Used in <i>Littletown Zoo</i> | 55 |
| Anticipatory Discussion Questions | 56 |
| Processing Discussion Questions | 57 |
| Closure Discussion Questions | 58 |
| Topics for Imaginative Compositions | 60 |

TABLE OF CONTENTS (continued)

| | |
|--|----|
| Topics for Persuasive Compositions | 62 |
| Research Topics | 64 |
| Related Books for Third- and Fourth-Grade Students | 66 |
| Bibliography on Zoos and Animals | 68 |
| Bibliography on Reading Comprehension | 69 |
| Credits | 71 |
| MECC Services | 72 |

FRAMES: A READING COMPREHENSION SERIES



Frames: A Reading Comprehension Series draws on a number of common threads from research on reading strategies, reading as a process, reading with a purpose, text structures, and classroom integration. The series focuses on the processes of reading, reading comprehension, fact-finding, and problem-solving.

Each product in the *Frames* series is a discovery-learning simulation in which students select the best three from a set of alternatives. Using inquiry-based processes, students determine appropriate comprehension tasks and reading activities. Students control the reading strategies necessary to determine the best selections. Teachers can control the focus of skills for individual students or for classroom learning with a variety of options found in the Management Options.

Reading Strategies

Reading comprehension involves a variety of strategies.

Good readers have a variety of strategies that they use and abandon, depending on the reading. Good readers switch strategies when one is not successful. These strategies depend on the reading situation—the text style, problem type, and purpose.

In *Frames: A Reading Comprehension Series*, students use strategies to determine which tasks to select, which readings to go to, where to locate information, and which signal words will help them understand the text structure. The reading program is based on the concept that strategies are important skills to develop and that using strategies can be a motivating factor because the student controls the reading choices.

In *Frames: A Reading Comprehension Series*, students choose reading tasks tied to various reading topics that include main idea, supporting details, and fact or opinion. Students determine which information to look for, which tools to use, and where to go for information.

Reading As a Process

The reader is in an active role, using clues to “construct” a meaning.

Comprehension is not a single process but a set of strategies and judgments based on a reader’s background knowledge, the kind of text, and the reading purpose. These processes include anticipatory judgments, comprehension checking, and “repair” strategies when initial anticipations go awry.

In the *Frames* series, we provide choices and “reading paths” through the documents that encourage students to make conscious reading decisions. Like other kinds of exploration, students formulate their own process and select readings they think are appropriate.

***FRAMES: A READING COMPREHENSION SERIES* (continued)**

Text Structures

The structure of a text provides important clues to the information contained in that reading.

Comprehending text is, in part, the ability to recognize the text's internal structures and use of signal words. These signal words help answer some fundamental questions: How is a text organized? Which signals point to its structure? Which organizational units structure information?

In *Frames: A Reading Comprehension Series*, we create "Find" tools that highlight the signal words for a variety of structures—words that signal comparison and contrast; sequencing and grouping; and time, cause, or examples. These tools add visual information to the reading and help students understand and interpret the organization of information.

In the *Frames* series, students use electronic tools to go to documents and identify text structures. Students gain skills in locating, working through, and manipulating electronic information. Text is "computer-based" and electronic tools help organize and display it.

Reading with a Purpose

Reading comprehension is most successful when there are clear purposes or goals for reading.

Reading comprehension strategies are best learned when they are integrated into a reading process whereby students have a choice of strategies for achieving a clear goal. Directed reading is best for practicing reading strategies. Using meaningful and challenging tasks is the best method for setting a purpose in comprehension activities.

In *Frames: A Reading Comprehension Series*, we offer a scenario and a group of readings in which students select tasks to practice a variety of reading skills. The tasks cover several major comprehension categories.

In the *Frames* series, students set their own reading agenda by selecting appropriate tasks to complete or questions to answer. This agenda is always in front of them and provides a directive for locating information. Students work within a scenario with a group of related readings. The readings provide information necessary for selecting the best possible animals.

FRAMES: A READING COMPREHENSION SERIES (continued)

Classroom Integration

The *Frames: A Reading Comprehension Series* was designed to be integrated into the language-arts classroom. Reading activities found in the *Frames* products can be used with collaborative reading activities, in small- and large-group discussion, and with a variety of writing activities. In the ideal classroom, *Frames* reading activities would be integrated with other language-arts activities: small- and large-group discussion, composition, oral reports, and library research, and with other elementary school units in science, math, and social studies.

Each manual contains discussion questions, writing activities, and collaborative-learning lesson plans for a variety of settings—the one-computer classroom, a classroom with several computers, a computer lab of individual stations, and a networked lab.

Management Options allow you to control the sequence and mix of comprehension activities. You can focus on a single comprehension task or mix any combination of comprehension tasks.

The themes that compose the *Frames* series were tested by more than 250 elementary students in the fourth, fifth, and sixth grades in inner-city, suburban, and small-town schools. These surveys were done in order to ensure that the themes selected for the *Frames* series fit into the curricula and were appealing for the students using them.

frame (frām) *v.* **framed, fram-ing, frames. tr.**

1. To construct by putting together the various parts of.
2. To conceive or design: *framed an alternate proposal.*
3. To arrange or adjust for a purpose: *The question was framed to draw only one answer.*
4. To put into words, formulate: *frame a reply.*
5. To enclose or encircle with or as if with a frame.
—*n.*
 1. Something composed of parts fitted or joined together.
 2. A skeletal structure designed to give shape or support: *the frame of a house.*
 3. An open structure or rim for encasing, holding, or bordering something: *a window frame.*
 4. The human body; physique.
 5. A machine built upon or utilizing a frame.

—*The American Heritage Dictionary, Second College Edition, Houghton Mifflin Company, Boston, 1982.*

INTRODUCTION



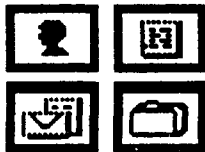
The Scenario. Students work at the Littletown Zoo. They decide which animals to put in an exhibit. First, they find out about animals and zoos, exhibits, and ten animals. Then they choose three animals to recommend to the director. Students earn scores and, if successful, their names are placed on the Honor Exhibits list.



Reading Tasks. Students first select tasks. Tasks include finding the main idea, locating supporting facts, locating word clues, making inferences and drawing conclusions, finding locations, finding definitions, and finding animal information.



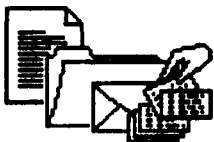
Readings. More than forty readings are organized around the zoo theme. There are data cards, letters from zoo visitors, and animal records from zookeepers for each of the ten animals. Other readings cover zoos, exhibits, and background information. Students look for readings where they think information is located by going directly to a reading or by browsing through a group of readings. They become strategic readers, gaining knowledge to help them select animals.



Animals and Documents. Students read about the ten animals. Each animal has a data card, a letter from a zoo visitor, and a zookeeper's record. The information on each animal is generated from hundreds of random data elements. These elements are placed in the data cards, letters, and records. Some elements have point values.



The Program. Students can reread, select, and answer new reading tasks. They encounter new exhibits and select new animals. With the Management Options, teachers can set the number and type of tasks, the exhibit type to be used, and the group of animals. Student records automatically save the game and build "reading portfolios."



Designed to be integrated into the language-arts curriculum, the *Littletown Zoo* manual includes classroom suggestions, cooperative-learning lesson plans, introductory and closure activities, student handouts, more than fifty discussion questions, extended writing and reading activities, and 100 composition and research topics.

THE PRODUCT AT A GLANCE

- Title:** *Littletown Zoo*
- Grade Level:** 3-4
- Subject Area:** Process-oriented reading
Language arts
Reading comprehension
- Program Type:** Discovery-learning simulation
- Hardware:** Apple IIc, IIe, IIGS with 128K RAM (not Apple II or II Plus;
Apple IIGS is recommended); printer optional
- Classroom Use:** Individual students or large group
- Management Options:**
- set the number of tasks required before selecting animals
 - set the type of tasks available
 - lock/unlock the random setting of animals and exhibits
 - create, view, and edit student records
 - specify printing options and printer setup
- Learning Objectives:** Using *Littletown Zoo*—which focuses on reading processes, reading comprehension, and problem-solving—students will:
- practice reading comprehension activities by:
 - finding the main idea;
 - locating supporting facts;
 - locating word clues including sequence words, location words, pronouns, adjectives, and vocabulary words;
 - making inferences and drawing conclusions;
 - finding locations;
 - finding definitions;
 - finding animal information;
 - practice reading for specific information;
 - determine effective reading strategies;
 - use higher-order thinking skills to select animals; and
 - understand the relationship of ideas in interrelated readings.



STEP-BY-STEP

The Big Picture



You are the Littletown Zoo director's assistant. Your job is to find out about ten animals and their exhibit. Then you select the three best animals for the exhibit.

Step 1: Choose a task that you like.



Tasks are like questions. You can change your task any time. Use the Task menu to select a task area. Sixty tasks are divided into seven areas that are found in the menu.

Main Idea
Zoo Information
Word Clues
Think About
Around the Zoo
Zoo Words
The New Animals

Main Idea tasks include the important ideas in readings. Zoo Information tasks are about facts and information. Word Clues tasks ask about different kinds of words. Think About tasks make inferences and draw conclusions. Around the Zoo tasks ask you where things are located. Zoo Words tasks are about vocabulary words. The New Animals tasks include animal information.

Step 2: Go where you think the information for your task is located.

Use the Go menu to access more than forty readings.

Ten Data Cards show animal information.
Ten Letters show a visitor's opinion of an animal.
Ten Records have zookeeper's information.
Twelve Documents cover zoos and animals.
Maps/Charts has four illustrations.
The Glossary defines more than thirty vocabulary words.



Data Cards
Letters
Records
Documents
Maps/Charts
Glossary



Step 3: When you find the answer to a task, select Answer.


Choose Answer to look at the answer choices. Select the correct answer and earn points.

Repeat these steps until you are ready to select animals.

Step 4: Choose your animals.

When you finish all your tasks, choose the animals that you think are best. See if you can match Ms. Doolittle's top three picks.

| Data Cards | |
|--------------|--|
| NAME: | Wally |
| ANIMAL: | Mountain lion |
| DESCRIPTION: | A large, endangered, gold-colored cat with a long tail |
| CURRENT ZOO: | Keystone State Zoo |
| AGE: | 16 months |
| HEALTH: | Poor |



STEP-BY-STEP (continued)

Getting Started



Main Menu

Zoo Office begins the program at the reading stage.

Instructions gives the first-time user information on playing.

Information gives teachers educational and product overview.

Honor Exhibits shows the top ten scores.

Select Option 1, **Zoo Office**.



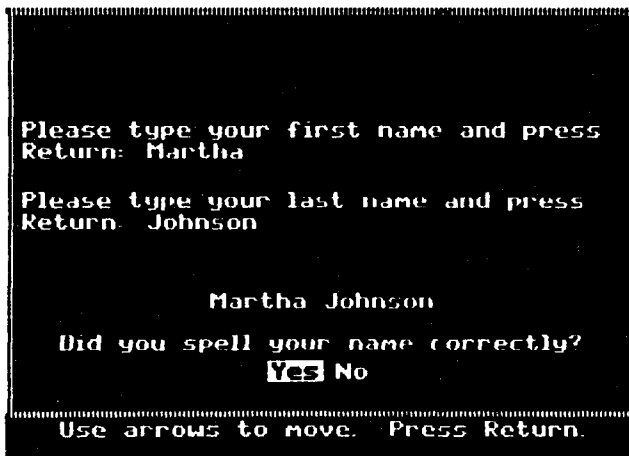
Student Record Selection

If there are student records on the disk, you will see a list of students.

If your name appears on the list, use the arrow keys to highlight it and then press the Return Key.

If your name is not on the list, select the Enter New Name option.

If there are no student records on the disk, you will be prompted to enter your name.



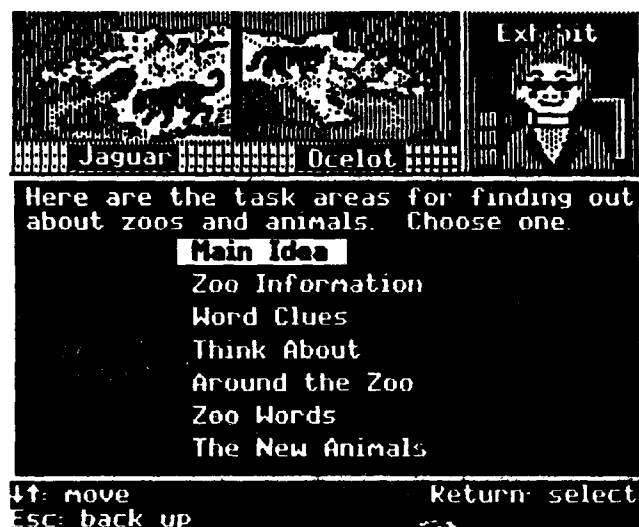
New Student Entry

Carefully spell your first name exactly as you want it listed and then press the Return Key. Do the same for your last name.

Your record saves your place in the game, including your animals, tasks completed, and score.

A student record can also be used for groups of students. A group or team name can be used instead of an individual name.

STEP-BY-STEP (continued)



Meeting Ms. Kate Doolittle

Ms. Kate Doolittle tells you how many tasks you need to do before selecting animals. The number of tasks is set in the Management Options. The preset condition allows the student to decide when to select animals.

Ms. Doolittle also tells you a very important piece of information—which exhibit the animals will be put in. It can be Littletown Farm (the Children's Exhibit), the Rain Forest Exhibit, the Savannah Exhibit, or the Woodland Exhibit. Each has different-sized spaces and different animals already in it.

Selecting the First Task Area

Select an area for your first task. The arrow keys move and the Return Key selects. Choose "Main Idea."

Each area is a different kind of task—finding the main idea, locating supporting facts, locating word clues, drawing inferences and conclusions, finding locations, finding definitions, and finding animal information.

For more information, see the reference section on the Task menu on page 14.

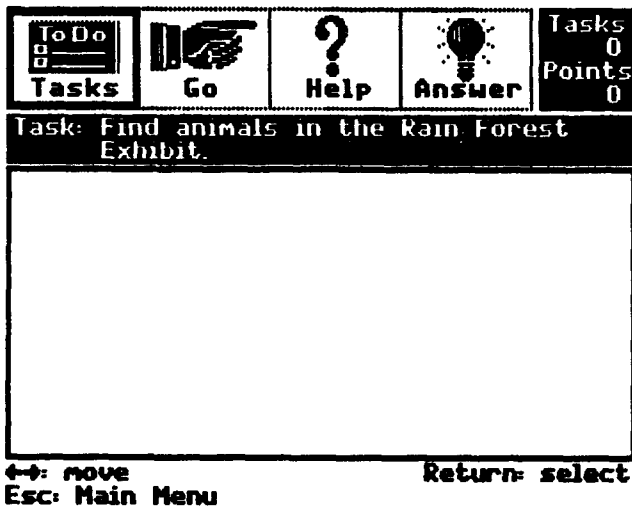
Choosing a Task

For example, if you had selected the "Main Idea" area, you would see a list of tasks that might be different but would be like those at the left. Using the arrow keys to move the highlight bar and the Return Key to select, choose a task to begin.

Since you will select animals for the Rain Forest Exhibit, find out which animals are in the Rain Forest Exhibit.

You can change the task any time you want from the Frames menu.

STEP-BY-STEP (continued)



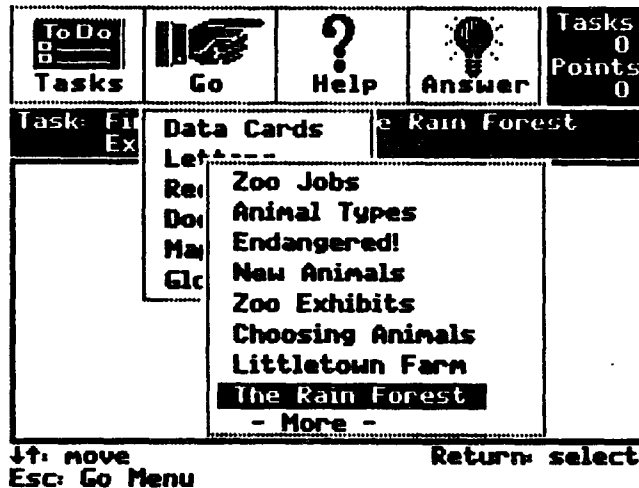
Going to the Frames Menu

There are four menu icons across the top: Tasks, Go, Help, and Answer. This is the Frames menu.

In the upper right corner, you see tasks done and points scored.

The task you just picked is below the Frames menu. This is the information you will look for.

The bottom two lines display standard messages.

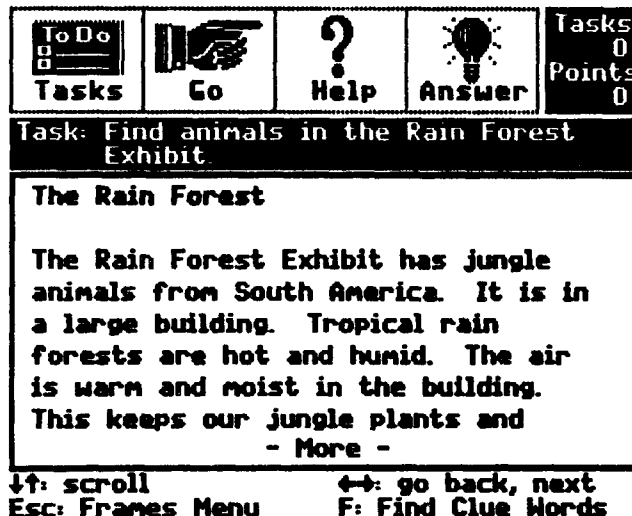


Selecting a Document

Move the menu frame to "Go" and press the Return Key. Select "Documents." Scroll through the twelve document titles. There is a document called "The Rain Forest." Take a look at it.

Press the Return Key when "The Rain Forest" is highlighted; it will be displayed in the large text window.

For more information, see the reference section on the Go menu on page 15.



Locating an Answer in Text





The title of the document is displayed at the top. Scroll through the document to find the animals in the Rain Forest Exhibit.

(The answer appears later in the document.)

When you find it, check the answer.

Press the Escape Key to get back to the Frames menu. The text from "The Rain Forest" will disappear.

STEP-BY-STEP (continued)

| | | | | |
|--|---|---|---|---------------------------|
|  Tasks |  Go |  Help |  Answer | Tasks 0 Points 0 |
|--|---|---|---|---------------------------|

Task: Find animals in the Rain Forest Exhibit

The answer is:

- A. Antelope, monkeys, and baboons.
- B. Jaguar, ocelot, birds, and snakes.**
- C. Gentle animals, farm animals, and pets.
- D. Mammals, reptiles, and amphibians.





↓: move Return: select

Esc: Frances Menu

Selecting an Answer

Move the frame cursor to Answer and press Return. Press the Return Key when "Select an Answer" is displayed.

It looks like B is the correct answer. That's what you just read in "The Rain Forest." So, select B.

| | | | | |
|---|---|---|---|-----------------------------|
|  To Do Tasks |  Go |  Help |  Answer | Tasks 1 Points 100 |
|---|---|---|---|-----------------------------|

Task: Find animals in the Rain Forest Exhibit.

Jaguar, ocelot, birds, and snakes.

Good job! You found the right answer.

Press SPACE BAR to continue

Getting Feedback

That's right! You found the answer to the task called "Find animals in the Rain Forest Exhibit."

Look in the upper right corner. You finished one task and got 100 points for answering correctly on the first try.

You get 75 points for a correct answer on the second try and get 50 points for a correct answer on the third try.

Task: Choose another task.

←→: move Return: select
Esc: Main Menu





Choosing Another Task

When you finish a task and press the Space Bar, you get a reminder to pick a new task. When this message appears in the task box, the Choose an Answer menu option does not work because there is no task for which you have an answer.

Pick another task.

Move the cursor to Tasks, press the Return Key, and choose a task from the "Around the Zoo" area.

STEP-BY-STEP (continued)





| | | | | |
|--|--|--|--|-----------------------|
|  Tasks |  Go |  Help |  Answer | Tasks 1 Points 100 |
| Task: Choose another task. | | | | |
| Choose a task. Find where... Rain Forest animals are from. the first zoos were located. the Rain Forest Exhibit is located. the pony is located. the Savannah's empty spaces are. the Savannah animals are from. - More - | | | | |
| ↓↑: move Esc: Frames Menu | | Return: select | | |

A Second Task

Choose a new task from the "Around the Zoo" area called "Find where the Rain Forest Exhibit is located."

Use the Go menu to go to the document "The Rain Forest" and in the first paragraph find the location of the Rain Forest Exhibit.





Then select an answer.

| | | | | |
|---|--|--|--|-----------------------|
|  Tasks |  Go |  Help |  Answer | Tasks 1 Points 100 |
| Task: Find where the Rain Forest Exhibit is located. | | | | |
| The answer is: A. In a large building. B. In front of the Woodland Exhibit. C. In the barn. D. In the trees. | | | | |
| ↓↑: move Esc: Frames Menu | | Return: select | | |

Answering the Second Task

If you choose A, you get another 100 points.

After you complete the task, pick another one.

| | | | | |
|---|--|--|--|-----------------------|
|  Tasks |  Go |  Help |  Answer | Tasks 2 Points 200 |
| Task: Choose another task. | | | | |
| Choose a task. Which one tells the... kinkajou's behavior? way the tree porcupine feels? health of the margay? age of the tree porcupine? food the margay likes? kinkajou's home? - More - | | | | |
| ↓↑: move Esc: Frames Menu | | Return: select | | |

Picking One More Task

Now do a task from the "New Animals" area.

Find out the age of one of the animals, the tree porcupine.

Then, move the frame cursor to Go and press the Return Key. Select Data Cards and select "Amber the tree porcupine" from the list of animal names.

Your list of names and tasks will be different from those shown here.

STEP-BY-STEP (continued)

| | | | | |
|--|----|------|--------|-----------------------|
| To Do Tasks | Go | Help | Answer | Tasks 2 Points 200 |
| Task: Which one tells the age of the tree porcupine? | | | | |
| Data Cards NAME: Amber ANIMAL: Tree porcupine DESCRIPTION: A medium-sized animal with a tail that can grasp branches CURRENT ZOO: Union Square Zoo AGE: 22 months HEALTH: Great | | | | |

←→: go back, next
Esc: Frames Menu

Looking at the Data Cards

Look through the data card for Amber the tree porcupine. The age is on the sixth line. Amber the tree porcupine is 22 months old. Now go to "Answer" to choose the correct answer.

You might decide to stop doing any more tasks, or you can probably do a few more. Pretend that you have enough information to select animals.

| | |
|---|--|
| | |
| I see you've done 7 tasks and you want to select three animals to add to the Rain Forest Exhibit. Do you wish to continue? Yes No | |

←→: move
Esc: Frames Menu
Return: select

Selecting Animals

Whenever you're ready, choose three animals for the Rain Forest Exhibit. To select animals, choose "Select Animals" from the Answer menu.

Ms. Doolittle reminds you to select three animals that fit best in the Rain Forest Exhibit. It can also be the Savannah Exhibit, the Woodland Exhibit, or Littletown Farm (the Children's Exhibit).

| | | |
|---|--|--------------------|
| | | Exhibit Info. 3 |
| Data Cards NAME: Willy ANIMAL: Howler monkey DESCRIPTION: A medium sized, endangered, animal that makes a loud, howling sound CURRENT ZOO: Nashua Zoological Park AGE: 13 months HEALTH: Not very good | | select |

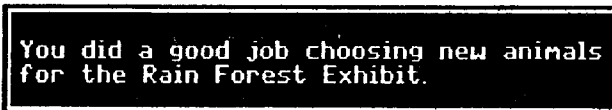
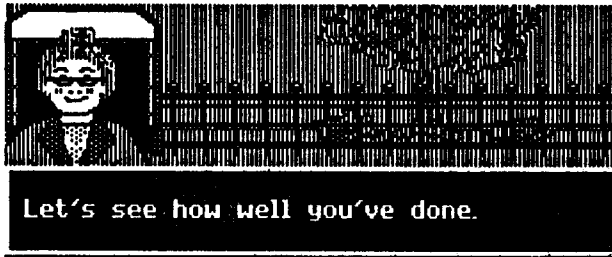
←→: go back, next
Esc: Boss's Office
Space: deselect
Return: done

Selecting Animals

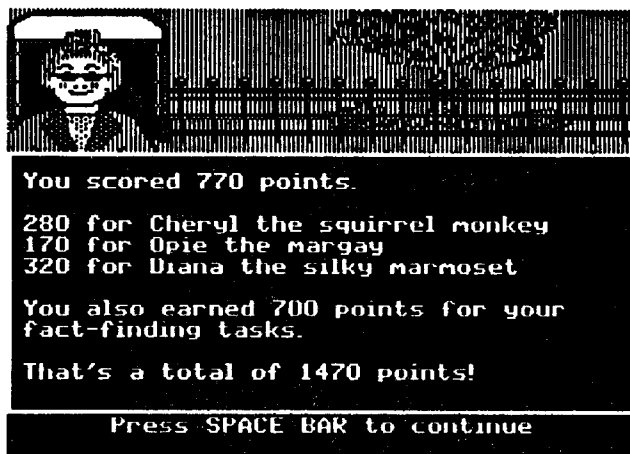
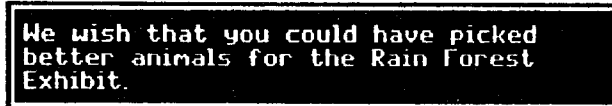
When you select your animals by pressing the Space Bar, a "Select" icon will appear in the upper right corner of the data card. The number will also change the Exhibit Information display beside the Ocelot.

You can back out at any time and continue working on tasks or browsing through the readings.

STEP-BY-STEP (continued)



or



Meeting Ms. Doolittle (Getting Feedback)

After you have selected your third animal and pressed Return, you find out how well you did.

Finding Out How You Did

Ms. Doolittle lets you know how you did. There are two types of messages for each exhibit—a good one if you match any of Ms. Doolittle's choices and a bad one if you don't match any of her choices.

Your Selections

You will see your three selections and points displayed. Ms. Doolittle evaluates your selections based on the ratings of animal attributes, such as their size and health.

Every animal will receive some points. The highest score an animal can get is 420. Will you ever see a score that good? Maybe.

Ms. Doolittle's Selections

You will see Ms. Doolittle's selections. These are the top three animals ranked by the ratings of certain animal attributes, such as their size and health.

If any of your selections match Ms. Doolittle's, you get 500 bonus points for each match. Those matches will be marked with a check mark. You can review the data cards of the animals before you quit.

The top ten scores go on Ms. Doolittle's white board, seen in Honor Exhibits.

REFERENCE

The Task Menu

When you highlight the Task icon and press the Return Key, you will see the Task menu. Use the Task menu to choose or change your reading task. The Task menu shows areas of tasks. When you select one of the areas, you will see a list of different tasks. The arrow keys move the highlight bar and the Return Key selects. The Escape Key clears the menu and returns you to the Frames menu.

Main Idea tasks look for main-idea comprehension. For example, "Find the animals with backbones" or "Find the way zoos are today."

Zoo Information tasks look for facts and details. For example, "Find the fourth goal of zoos" or "Find a place zoos get new animals today."

Word Clues tasks deal with different types of words. For example, "Find some examples of adjectives in 'Zoo Exhibits'" or "Find some examples of 'Zoo Exhibits' vocabulary words."

Think About tasks make inferences and draw conclusions. For example, "Which one tells why there are few expeditions?" or "Which one doesn't belong in a petting exhibit?"

Around the Zoo tasks deal with locations in descriptive passages. For example, "Find where the Savannah Exhibit is located" or "Find where the moose live."

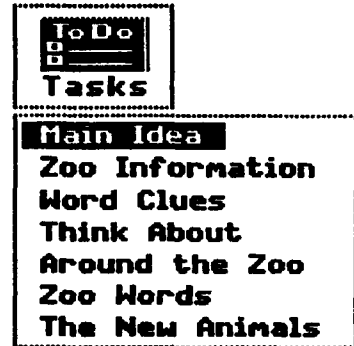
Zoo Words tasks deal with vocabulary and meaning. For example, "Find the meaning of woodland" or "Find the meaning of 'extinct' in 'Endangered!'"

The New Animals tasks ask for specific information about animals. For example, "Which one tells the health of the [animal]?" or "Which one tells the food the [animal] likes?"

There are 140 tasks in *Littletown Zoo*, twenty for each task area. Any task area can be turned "off" in Program Settings under the Management Options (see page 21). From the twenty tasks in any task area, eight or nine are randomly selected to be active for a game. In this way, repeated uses of *Littletown Zoo* will bring up new and different mixes of tasks.



Note: You can change tasks at any time, but be careful! There are only eight or nine tasks in each area, unless the program settings have changed to fewer task areas. Student records keep track of the tasks that you have selected but not answered correctly. Not all tasks are equally good for helping reach the final goal of selecting the best animals. Remember, you get points by finding the answers to tasks. Your selected task is always displayed in the "Task" window.

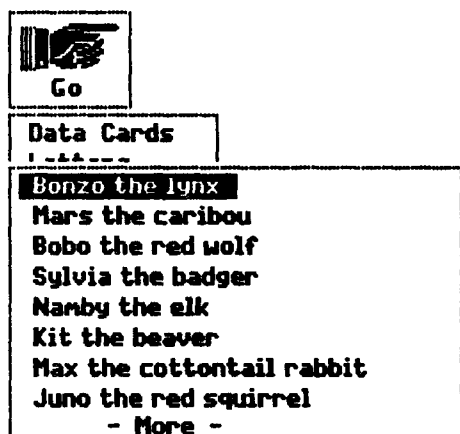


REFERENCE (continued)

The Go Menu

The Go menu displays the menu options used for going to particular documents. The arrow keys move the highlight bar and Return selects. Escape clears the menu and returns you to the Frames menu.

Data Cards summarizes each of the ten animals. Use the Left- and Right-Arrow Keys to move between data cards. Data Cards do not scroll. The information in Data Cards changes with each game. When you pick Data Cards from the menu, you will see a menu of animals from which to select.



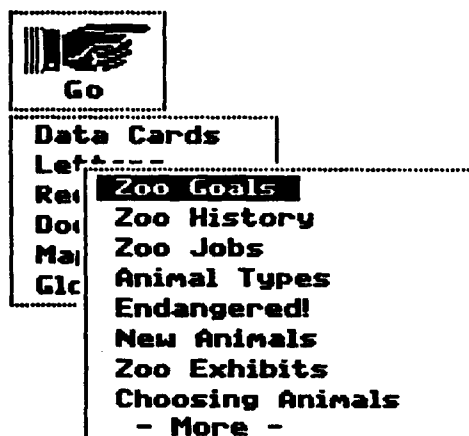
Letters are letters from visitors who have seen each of the ten animals. Each letter contains information for each animal. The information in Letters changes with each game. There are four kinds of recommendation letters: High, Good, With Qualifications, and Bad. When you pick Letters from the menu, you will see a menu of animals from which to select.

Records describes the animals from the zookeeper's point of view. There is one standard record format. Each animal's record contains different information. The information in Records changes with each game. When you pick Records from the menu, you will see a menu of animals from which to select.

Documents contains twelve different documents. When you select Documents, you will see another menu with document titles. Escape returns you to the Go menu.

The documents contain a variety of reading levels and styles. They contain information on various topics: background information on zoos and animals, choosing animals, and information about each of the exhibits.

Maps/Charts shows four graphics containing maps of the zoo and a chart on animal acquisition. The illustrations are labeled.



Glossary contains more than thirty vocabulary words found in various places. The entries include pronunciation keys and definitions.



Note: You can change documents any time; just press the Escape Key and choose a new one! Your student record keeps track of documents that you have selected. Remember, Data Cards, Letters, and Records change each time you play. Documents and Illustrations stay the same.

REFERENCE (continued)

More on Documents

Here is a brief description of each *Littletown Zoo* document.

| Title | Description | Style |
|------------------|---|------------------|
| Zoo Goals | Explanation of the four goals of zoos | Definition |
| Zoo History | Summary of the history of zoos | Sequence |
| Zoo Jobs | Explanation of some of the jobs at zoos | Classification |
| Animal Types | Explanation of animal classification | Classification |
| Endangered! | Explanation of endangered animals | Classification |
| New Animals | Explanation of animal acquisition | Problem/Solution |
| Zoo Exhibits | Explanation of different exhibit types | Classification |
| Choosing Animals | How to select animals for an exhibit | Problem/Solution |
| Littletown Farm | Description of Littletown Farm | Description |
| The Rain Forest | Description of the Rain Forest Exhibit | Description |
| The Savannah | Description of the Savannah Exhibit | Description |
| The Woodland | Description of the Woodland Exhibit | Description |

The Find Clue Words Menu

When you are in a document, letter, or biography, and press F (for Find), the Find Clue Words pop-up menu appears. Each option highlights different kinds of words. This helps you to see at a glance the structure of a text and to quickly locate information.

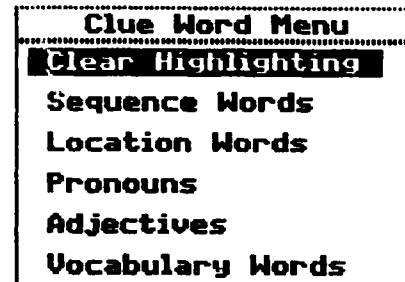
Sequence Words highlights words or phrases such as "first," "second," "next," and "last."

Location Words highlights words or phrases like "all over the world," "in zoos," "in Egypt and China," and "there."

Pronouns shows words like "you," "they," "it," and "their."

Adjectives shows words like "new," "many," "natural," and "four."

Vocabulary Words highlights words found in the glossary, such as "behavior" or "endangered."



Zoo History

A zoo is a place where people keep groups of live animals. There were zoos in Egypt and China **more than 3,000 years ago.** Some rulers collected animals **in the Middle Ages.** These collections had land animals, **More**

Sample Clue Words

This example shows the effect of selecting "Sequence Words" from the Find Clue Words menu.

This document, "Zoo History," is written as an exposition and there are lots of location words and phrases.

REFERENCE (continued)

The Help Menu

When you move the highlight bar to Help and press the Return Key, you will see the Help menu with a set of topics. The arrow keys move the highlight bar and the Return Key selects. The Escape Key clears the menu and returns you to the Frames menu.

Each topic covers a "How-To" item that will help you as you go through the program. There is advice for different parts of the reading process, such as Before Reading. There are helpful suggestions for choosing a task, finding an answer, and selecting animals.



Choosing a Task
Before Reading
While Reading
After Reading
Selecting Documents
Finding the Answer
Selecting Animals

Choosing a Task reminds you about strategies for choosing tasks and the purpose of tasks.

Before Reading provides several strategies for reading, making guesses, and using your tasks.




While Reading offers suggestions about reading strategies, recalling, guessing, and thinking.

After Reading reminds you of your options after finishing a reading.

Selecting Documents summarizes the different kinds of documents.

Finding the Answer reminds you about finding and selecting an answer.

Selecting Animals provides information about selecting animals.

| | | | | |
|--|---|---|---|---------------------------|
| To Do Tasks |  Go |  Help |  Answer | Tasks 0 Points 0 |
| Task: Find where the letters came from. | | | | |
| Finding the Answer * Before reading, look at the answers. * You can select Answer any time. * When you find an answer, select Answer. * Choose the correct answer. If you - More - | | | | |
| ↓↑: scroll ←→: go back, next Esc: Frames Menu | | | | |

A Sample Help Screen

Here is a sample help document in the large text area.

If you press the Escape Key, you will clear the help text.



Note: You can receive help at any time in the program; just press the Escape Key and choose Help. Your student record does not keep track of how many times you ask for help or what kind of help you have read. Remember, help is there for you every step of the way!





REFERENCE (continued)

The Answer Menu

When you move the highlight bar to Answer and press the Return Key, you will see the Answer menu and two choices. The arrow keys move the highlight bar and the Return Key selects. The Escape Key clears the menu and returns you to the Frames menu.

Choose an Answer lets you look at and select the best answer to your task. The answers that appear here always correspond to the task that is in the white box.

Select Animals lets you begin selecting animals for your exhibit. If you have not finished all the required tasks, this option will remind you of the number of tasks you need to complete and the exhibit for which your animals are intended.

| | | | | |
|--|---|---|---|---------------------------|
|  Tasks |  Go |  Help |  Answer | Tasks 0 Points 0 |
| Task: Find one thing curators do in 2005. | | | | |
| The answer is: | | | | |
| A. Prepare and store animal food. | | | | |
| B. Clean animal exhibits. | | | | |
| C. Plan exhibits. | | | | |
| D. Take care of the zoo's water. | | | | |
| ↓↑: move | | Return: select | | |
| Esc: Frames Menu | | | | |

Selecting an Answer

When you pick "Choose an Answer" from the Answer menu, the Answer screen shows the task and the answer choices. The task is displayed in the task box. The answers are in the text area. The Escape Key returns you to the Frames menu.

Use the arrow keys to move the highlight bar through the four choices to the correct answer and press the Return Key.

If you are correct, you get points added to your total and you're one step closer to choosing your animals.

About Answers

For each of the seven kinds of tasks types (Main Idea, Word Clues, etc.), there are twenty tasks. In any given game of *Littletown Zoo*, you will see about half of those—about eight or nine tasks per area. Each task has a corresponding answer. Each task also has "distractors." The position of answers (A, B, C, D) is random. The correct answer could be located at any letter and may appear at different letters within the same program.

You can select an answer three times. You get 100 points for a correct first try, 75 points for a correct second try, and 50 points for a correct third try. Sorry, there are no points for a fourth try.



Note: You can select Answer at any time in the program. Your student record does not keep track of how many times you look at the answer before you select one. Remember, looking at Answer before you begin reading can help you focus on four choices. Knowing those four choices can narrow your search.

REFERENCE (continued)

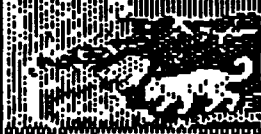

Selecting Animals

When you're ready, or when you have finished the required number of tasks, you can select animals.

Selecting animals requires that you pick three animals for one of four exhibits: the Rain Forest Exhibit, the Savannah Exhibit, the Woodland Exhibit, or Littletown Farm (the Children's Exhibit).



Choose an Answer
Select Animals

| | | |
|---|--|--------------------------------------|
|  Jaguar |  Ocelot | Exhibit Info. <div>1</div> |
| Data Cards NAME: Kit ANIMAL: Beaver DESCRIPTION: A medium-sized dam builder with a broad, flat tail CURRENT ZOO: Geneva Zoological Gardens AGE: 14 months HEALTH: Robust | | |
| select | | |

←→: go back, next Space: deselect
Esc: Boss's Office

Making a Selection

You select animals by pressing the Space Bar. A framed icon is drawn in the upper right corner of selected data cards. When you choose an animal, you can change your mind and "deselect" one of your animals by pressing the Space Bar again. After you select your third animal, press Return to review your selections with Ms. Doolittle.

About Animals

Animals are "constructed" from data elements such as the ones displayed in the data cards. Other elements are placed in the Letters or Records. Some, but not all, of these data elements are valued. These valued data elements are used to determine how successful your selections are. In any given game of *Littletown Zoo*, you will see ten animals that may share some similarities—but also have important distinctions. Among other things, their health and behavior will determine how valuable they are for an exhibit.



Note: In the standard settings, you can decide to select animals at any time in the program. Remember, when you select animals you are saying that you have enough information to make a good selection.

MANAGEMENT OPTIONS

Main Menu

Access the Management Options menu by pressing Control-A from the main menu.

Option 1: Changes program settings

Option 2: Manages student records

Option 3: Handles all standard printer options

Option 4: Erases the High-Score List in Honor Exhibits

Management Options

1. **Program Settings**
2. **Student Records**
3. **Printer Support**
4. **Clear Honor Exhibits**

Program Settings

This option allows you to change program variables to suit your classroom objectives. For in-depth information, see the next page.

1. **Set Task Number.** Preset the number of tasks or let students decide how many tasks to do before selecting animals.
2. **Select Task Types.** Focus on one task type, all tasks, or any mix of task types.
3. **Select Exhibits.** Choose an exhibit or have the computer choose one.
4. **Animal Sets.** Set the same or different animals for new students on the same disk.

Program Settings

1. **Set Task Number**
2. **Select Task Types**
3. **Select Exhibits**
4. **Animal Sets**
5. **Restore Default Setup**

Student Records Options

This option allows you to view and edit student records, add student records, and delete student records. Student records are kept for the current game. You can add student records and specify any program setting that would be specialized for that student. For more information, see pages 22-23.

Printer Support

You can set the printer slot, set special commands, test the printer setup, and restore the default setup.

Student Records

1. **View/Edit Student Records**
2. **Add Student Records**
3. **Delete Student Records**
4. **Print all Student Records**

1. **Set printer slot**
2. **Set special commands**
3. **Test printer setup**
4. **Restore default setup**

MANAGEMENT OPTIONS (continued)

Program Settings

Program Settings allows you to change the program to match your classroom objectives, learning conditions, teaching style, lab setting, or student needs. To fully understand the issues involved in changing these settings, you should review the section "Use in an Instructional Setting," particularly pages 27-28.

Note: Changing Program Settings affects only new student records on that disk. Changing program settings does not affect student records that have already been created.

1. **Set Task Number.** The preset condition allows the student to decide when to select animals. (Students complete as many of the sixty tasks as they want before selecting animals.) You can set the number of tasks from zero to twenty that need to be completed before selecting animals. This is the number of tasks students must complete before selecting animals.
2. **Select Task Types.** This option sets which task types are on or off. Task types are found on the "Task" menu. Focus on one task type (for example, "Main Idea"), all tasks, or any mix of task types. The preset condition is "all task types are 'on.'" You must have one task type on. With fewer task types, each type contains more tasks. With one to three task types, each type will have twenty tasks in it.
3. **Select Exhibits.** This option lets you choose an exhibit or have the computer choose an exhibit (random selection). The preset condition is "the computer chooses."
4. **Animal Sets.** This determines if students see the same or different animals. The program randomly generates animals. With "The same animals," every new student, using a copy of that disk at the same time, has the same set of animals. The preset condition is that students see "different animals."

Program Settings

1. **Set Task Number**
2. **Select Task Types**
3. **Select Exhibits**
4. **Animal Sets**
5. **Restore Default Setup**

Set Task Number

New students decide when to begin selecting animals.

Do you want to change this? Yes

1. **Student decides when to select animals.**
2. Teacher sets the number of tasks required before the students select animals.

Select Task Types

Set the task mix for new students:

| | |
|-----------------|-----------|
| Main Idea | ON |
| Zoo Information | ON |
| Word Clues | ON |
| Think About | ON |
| Around the Zoo | ON |
| Zoo Words | ON |
| The New Animals | ON |

Select Exhibits

Currently, the computer will select the exhibits for new students.

Do you want the computer to select the exhibit? **Yes** No

Animal Sets

Each new student on this disk has:

- ✓ **Different animals**
The same animals

MANAGEMENT OPTIONS (continued)

Student Records

Student records collect student-performance data. As each name is entered, a new student record is created. Student records provide a look at students' performance in the current game. The student record answers the questions: What have they been reading? Which tasks have they been choosing? How many tasks did they choose but not answer?

How many points have they earned? The student record also *saves the progress of a game*. A student record continues a saved game later with *the same animals, tasks, and management options*. The student record also keeps track of how many games a student has played. Forty student records fit on each disk. You can look at student records, change the student name, add student records with specific program settings, and delete student records to make way for new students.

Student Records

1. **View/Edit Student Records**
2. **Add Student Records**
3. **Delete Student Records**
4. **Print all Student Records**

1. View/Edit Student Records

The list of student records shows how many tasks the students are to do (Tsk), how many tasks they have selected (Sel), how many they have answered correctly (Cor), and how many points they have (Pnt).

Press the Space Bar to edit the spelling of the first or last name.
Press the P Key to print records.
Press the Z Key to "zoom in" on a highlighted student record.

View/Edit Student Records

| Name | Tsk | Sel | Cor | Pnt |
|-------------|-----|-----|-----|------|
| Hooper, D | 0 | 8 | 7 | 1970 |
| Morgan, W | 0 | 1 | 1 | 100 |
| O'Rourke, J | 0 | 4 | 0 | 0 |

Tasks
Selected

Points
Earned

Tasks
Required

Answered
Correctly

Student-Record Zoom

Student-record zoom shows how many games a student has played, if the current game is finished or in progress, and which tasks were selected and answered. Only task types that are "on" in program settings are displayed in the "zoomed" record. So the zoomed record shows the program options set for a student.

When you press the Space Bar, you will see which readings were opened and if any tools (Find) were used. Press the P Key to print the zoomed record.

| | | |
|--|----------|-----------------|
| Student record for: Morgan, William | | |
| Last game: Unfinished | | Games played: 0 |
| Tasks Required: 0 | | |
| Task Types | Selected | Answered |
| Main Idea | 6 | 4 |
| Zoo Information | 3 | 3 |
| Word Clues | 3 | 1 |
| Think About | 5 | 1 |
| Around the Zoo | 2 | 2 |
| Zoo Words | 3 | 1 |
| The New Animals | 7 | 5 |

| | | | |
|--|----------|-----------------|------|
| Student record for: Morgan, William | | | |
| Last game: Unfinished | | Games played: 0 | |
| Tasks Required: 0 | | | |
| Readings | Selected | Used | Find |
| Letters | 19 | 0 | |
| Records | 25 | 0 | |
| Documents | 18 | 0 | |
| Data Cards | 19 | - | |
| Maps and Charts | 1 | | |
| Glossary | 1 | | |

MANAGEMENT OPTIONS (continued)

2. Add Student Records

Enter the last name and then the first name.
Confirm that the spelling is correct.

When you add a new student, the student record uses the current program settings. If you have not changed the program settings, each student that you add uses the default values: the student decides when to select animals, all task types are on, the computer picks the exhibit, and everyone sees different animals.

If you want some students to work with program settings other than the default, change the program settings first, and then add students. Any student records that are added in this way take the current program settings. Students retain these settings on all future games unless they are deleted and re-entered with new program settings. If you want students to have more than one record with different program settings, use unique names.

| Add Student Records | |
|---|-----------------------------|
| Enter the student's first name and press return: Jack | |
| Enter the student's last name and press return: Owens | |
| Jack Owens | |
| Is this student's name spelled right? | |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |

3. Delete Student Records

When you select Delete Student Records from the Student Records Option, you will see a list of student records. Arrow keys move through the list. The Space Bar selects the student record(s) you wish to delete. A check will appear to the left of the student name if it has been selected to be deleted. "A" will select all students.

The Return Key will delete the selected records. Before the records are deleted, you will be asked if you're sure you want to delete these records. Be sure.

| Delete Student Records | | | | |
|------------------------|------|-----|-----|-----|
| ✓Delete record(s) | Task | Sel | Cor | Pnt |
| Adams, K | 5 | 0 | 0 | 0 |
| Hauck, J | 5 | 0 | 0 | 0 |
| ✓Allen, A | 5 | 0 | 0 | 0 |
| ✓Donovan, C | 5 | 0 | 0 | 0 |
| ✓LaPoint, K | 5 | 0 | 0 | 0 |

| | | |
|------------------------------|----------------|---------------|
| Arrows: move | Space: select | A: select all |
| Esc: Student Records Options | Return: delete | |

4. Print Student Records

This will automatically print all of the student records on the disk. You may see this message. If so, you will need to use the Printer Support options found in Management Options.

There must be a printer attached to your computer to use this option.

MANAGEMENT OPTIONS (continued)

This product is initially set to work with a standard Apple printer card located in either Slot 1 or Slot 2. If you have this setup, you do not need to do anything further. If your printer uses another setup, or to select or use special commands, use Printer Support.

Printer Options appears on the *Littletown Zoo* Management Options menu. You may access the Management Options from the main menu by typing Control-A.

Management Options

1. **Program Settings**
2. Student Records
3. Printer Options
4. Clear Honor Exhibits

From the *Littletown Zoo* Management Options menu, selecting Option 3 takes you to the Printer Options menu. The current printer settings are shown at the top of the screen.

Printer Options

Current slot: Search Slots 1 & 2
Printer Type: Apple

1. **Set Printer Slot**
2. Set Printer Type
3. Test Printer Setup
4. Restore Default Setup

Use arrows to move. Press Return.
Escape: Teacher Options

Option 1, Set Printer Slot, allows you to specify the slot in which your printer interface card is located. If you are using an AppleShare® network, choose Option 8. This setting will automatically select the correct printer slot for each computer on the network.

Set Printer Slot

Current slot: Search Slots 1 & 2
Printer Type: Apple

1. Slot 1
2. Slot 2
3. **Search Slots 1 & 2**
4. Slot 4
5. Slot 5
6. Slot 6
7. Slot 7
8. AppleShare (R) Network

Use arrows to move. Press Return.
Escape: Printer Options

MANAGEMENT OPTIONS (continued)

Option 2, Set Printer Type, allows you to select the type of printer you are using: either an Apple, an Epson, or a special configuration.

Set Printer Type

Current slot: Search Slots 1 & 2
Printer Type: Apple

1. Apple Printer

2. Epson Printer

3. Special Configuration

Use arrows to move. Press Return.
Escape: Printer Options

Selecting **Apple Printer** allows you to choose one or more of the options shown on this screen.

You are not able to select both semi-condensed and condensed or to add line feeds and suppress line feeds at the same time.

Selecting **Default** clears from the *program* all other customized options or special commands. To ensure that the *printer* clears all previous commands, turn the printer off, wait several seconds, and then turn it back on again before printing.

Apple Printer

Current slot: Search Slots 1 & 2
Printer Type: Apple

✓ Default

Semicondensed

Condensed

Boldface

Add line feeds

Suppress line feeds

Slashed zeros

Arrows move, SPACE BAR to select.
Escape: Set Printer Type

Selecting **Epson Printer** allows you to choose one or more of the options shown in this screen.

You are not able to select both emphasized and compressed at the same time.

Selecting **Default** clears from the *program* all other customized options or special commands. To ensure that the *printer* clears all previous commands, turn the printer off, wait several seconds, and then turn it back on again before printing.

Epson Printer

Current slot: Search Slots 1 & 2
Printer Type: Epson

✓ Default

Compressed

Italics

Emphasized

Double Strike

Arrows move, SPACE BAR to select.
Escape: Set Printer Type

Selecting Special Configuration allows you to enter commands that enable certain types of printers to operate. These special commands are listed in the manufacturer's printer manual.

Do not set up the printer to use a proportional font. This setting will cause printed student records to be formatted incorrectly.

Note: To ensure that previous printer commands are cleared, turn the printer off, wait several seconds, and then turn it back on again before performing this test.

All changes made to the Printer Options settings are saved on the disk and are permanent until you use the Printer Options again to change the printer settings.

Enter Special Configuration

Current slot: Search Slots 1 & 2
Printer Type: Other

***-Delete: Delete**
***-Escape: Set Printer Type**

Test Printer Setup

Current slot: Search Slots 1 & 2
Printer Type: Apple

Please prepare your printer.

Press the SPACE BAR to continue.
Escape: Printer Options

Restore Default Setup

Current slot: Search Slots 1 & 2
Printer Type: Apple

Ready to restore the default printer options.

Press the SPACE BAR to continue.
Escape: Printer Options

USE IN AN INSTRUCTIONAL SETTING

Littletown Zoo and Your Reading Program

Littletown Zoo was designed with a variety of classroom experiences in mind. Students can work at individual stations in a computer lab, practicing specific skills or reviewing all of them. You can change the number and mix of tasks for each student. Students can also work in small groups, sharing tasks and selections. You can lead small-group activities with a computer for each group and have all groups work with the same set of animals. Finally, you can use one computer and lead a large group in the selection of a set of animals.

Are your students studying a unit on zoos or animals? Do they need a review of reading comprehension skills? Do they need practice in predicting the location of information and fact-finding? Do they need non-fiction materials in addition to their literature-based reading class? ***Littletown Zoo*** has features that make it flexible enough to accommodate a wide range of classroom needs. Before you use ***Littletown Zoo*** in your classroom, you will want to resolve several questions about your instructional preferences. These questions include:

Computer Use: Individual or Group?

Littletown Zoo can accommodate a variety of instructional uses. Individual students can use the product, and pairs or groups of students can use it in a collaborative fashion, taking turns on tasks and answers. You can also use the product in front of a large group of students. Collaborative usage adds to the resources available for decision-making. It allows students to interpret information, discuss concepts, and share ideas and perspectives.

Individual work will let you track progress and skills and tailor the program to individual student needs. Group work will allow collaborative learning to take place.

Setting: Computer Lab or Classroom?

Littletown Zoo works on AppleShare, Corvus Omninet, Digicard, and VELAN networks. You can also design a learning experience in your classroom with a few computers handling several small groups of students or a single computer under your direction handling an entire class. In the lab, your students will get plenty of individual practice and you will be able to track that progress by accessing the student records from Management Options. In the classroom, you can expect more personal interaction and you can encourage cooperative and collaborative decision-making. You can also control and initiate discussions before, during, and after using the program. The discussions can be large-group, small-group, or paired.

In the classroom, you are more likely to foster a collegial and cooperative atmosphere; in a lab, you are more likely to meet individual needs. ***Littletown Zoo*** Management Options (Control-A from the main menu) can be adjusted to suit your educational philosophy and objectives. The following questions list issues surrounding the program settings (see page 21).

USE IN AN INSTRUCTIONAL SETTING (continued)

Comprehension Skills: Mix or Focus?

Littletown Zoo includes a variety of comprehension skills (Tasks):

- Finding the main idea (Main Idea);
- Locating supporting facts and details (Zoo Information);
- Understanding the various uses of words (Clue Words);
- Making inferences and drawing conclusions (Think About);
- Using descriptions to determine locations (Around the Zoo);
- Determining the meaning of key words (Zoo Words); and
- Finding details (The New Animals).

The standard setting includes all of these skills. You can turn off one or more of the skill areas (task areas) to tailor the mix of skills your students practice. You can have one skill, a few skills, or all the skills (see page 21).

A mix of skills helps students find a variety of information that will aid their selection process. A focus on a single skill or small set of skills helps reinforce classroom learning objectives.

Control of Experience: Random Scenarios or Uniform Scenarios?

Littletown Zoo, in its standard settings, generates random animals from a pool of potential attributes. Students choose animals to place in a randomly selected exhibit—the Savannah Exhibit, the Rain Forest Exhibit, the Woodland Exhibit, or Littletown Farm (the Children's Exhibit). You can make sure everyone sees the same exhibit and set of animals, or the same set of animals and a random exhibit, or a random set of animals and the same exhibit (see page 21).

You may want to organize discussion activities before, during, or after the game. For example, if you want the class to compare two animals, compare reasons for choosing animals, or compare strategies for selecting animals for an exhibit, you may want everyone to share the same experience for discussion or writing activities.

On the other hand, you can still carry out all these activities with the preset random selection, but responses will vary widely. Random selection has the advantage of giving students unusual, but important, choices. It provides unique experiences to share in discussion or writing.

In random selection, unique experiences can generate discussion or individual writing activities. In uniform scenarios, every student shares the same experience.

Student Control: A Set Number of Tasks or Unlimited Tasks?

Littletown Zoo, in its standard settings, allows students to decide how many of sixty tasks to do before selecting animals. These tasks are randomly selected from a larger pool of 140 tasks. You can set the number of tasks (from one to twenty) required before selecting animals (see page 21).

USE IN AN INSTRUCTIONAL SETTING (continued)

Task selection gives the student an element of control. The student sets the agenda. Deciding which tasks are important is a way that students can strategize about the reading process and the selection process of animals. Deciding which information is important is an essential research and reading skill.

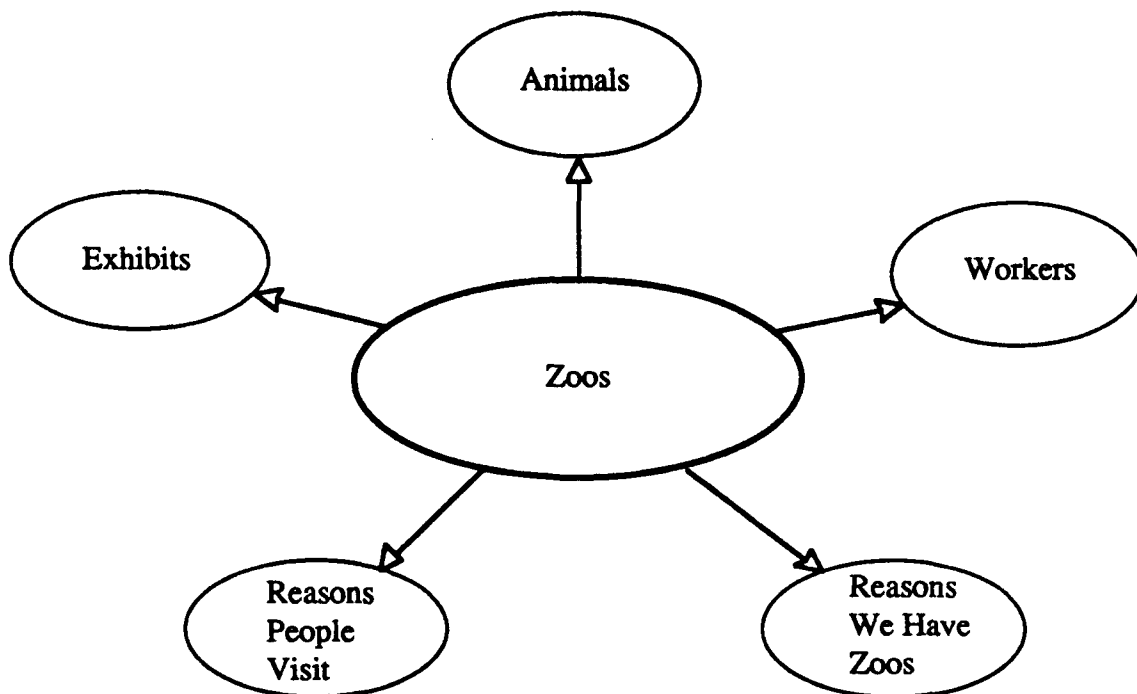
A set number of tasks gives the student an opportunity to focus on one task at a time. Presetting tasks also simplifies the reading strategies. It means that students can concentrate on where information is located and not on which information to locate.

Preparing Your Students for *Littletown Zoo*

Before using *Littletown Zoo*, you may want to review students' background knowledge of zoos and animals, vocabulary, and skills and strategies. See the Lesson Plans for introducing *Littletown Zoo* on pages 33-42.

Semantic Map

One way to begin a discussion of students' background knowledge and vocabulary of zoos and animals is to have students complete the "Semantic Map" and review it as a group (see pages 33-42 for lesson plans and page 50 for a reproducible version of the "Semantic Map").



Students add information and examples that they are familiar with to each balloon. A completed "Semantic Map" might include several levels of balloons or nodes and many lines or connectors that web these concepts together.

USE IN AN INSTRUCTIONAL SETTING (continued)

Frames Worksheet

Another way to introduce decisions and concepts used in *Littletown Zoo* is the “Frames Worksheet” (see page 51 for a reproducible version).

| |
|--|
| You are the assistant director of the Littletown Zoo. You will choose three animals to add to an exhibit. |
| What I Know _____ _____ _____ |
| What I Need to Know _____ _____ _____ _____ _____ |
| What Would Be Interesting to Know _____ _____ _____ |

Students can fill these out individually or in small groups. This will give you an interesting perspective on their background knowledge, what students expect to find out, and what they would like to know. You can also review this as a group and fill this out together, using an overhead projector or a blackboard version.

Discussion

You may want to lead a general introductory discussion about zoos or animals (see pages 33-42 for lesson plans and pages 56-59 for sample discussion questions). Topics might include:

- the purposes of zoos;
- the kind of exhibits that are found in zoos; and
- the kinds of animals that are found in zoos.

Vocabulary

The glossary in *Littletown Zoo* is a good beginning point for vocabulary review. (Access Frames Menu screen, choose Go, then choose Glossary.)

USE IN AN INSTRUCTIONAL SETTING (continued)

Integrating Other Language-Arts Activities

Discussion

Discussion is an important part of the *Littletown Zoo* experience. Discussing issues, concepts, and background information will prepare students for a successful reading experience. Discussing decision points and problems while using *Littletown Zoo* will enhance students' strategic reading abilities. Discussing the reasons for selections will foster critical thinking.

Anticipatory Discussion

Before playing *Littletown Zoo*, it is important to prepare students for a number of things. You should take a few minutes to discuss the scenario and background information related to zoos and animals; the activities they will be involved in, i.e., fact-finding and selecting; and the decisions they will have to make.

A lesson plan is on page 33 and questions are provided on page 56.

Processing Discussion

You may want to stop using *Littletown Zoo* from time to time to discuss aspects of students' computer use. Discussions should focus on developing reading strategies, information-gathering strategies, and analyzing the information that students find.

For example, as they select tasks, you may want to stop to talk about which tasks might be most important in helping decide which animals are better. Or, after they have selected animals, you may want them to consider if they were able to find the three best animals, if there were animals they wanted but couldn't find, or if they would have liked to find more information about the animals. Lesson plans are on pages 34-38 and questions are provided on page 57.

Closure Discussion

After completing a session of *Littletown Zoo*, you may want to discuss students' experiences and their reasons for selection. Ask the students to compare animal qualities, analyze their strategies, and think about other possible outcomes. Lesson plans are on pages 39-40 and sample closure discussion questions on pages 58-59.

Oral Reports

After selecting an animal from *Littletown Zoo*, you may want to encourage students to give a short presentation on their exhibit and set of animals. Students will want to tell others about their choices and their reasons for making them.

USE IN AN INSTRUCTIONAL SETTING (continued)

Writing

Topics for Imaginative Compositions

As a teacher, you probably already have many interesting topics or writing assignments that would tie in with the themes developed in *Littletown Zoo*. We offer some suggestions to enhance students' experiences (see pages 60-61).

"You have been hired to be the director of a new zoo that hasn't been built yet. Describe the biggest exhibit." This sample topic may not seem very imaginative, but students are given a chance to imagine themselves in a new situation. They can develop stories and use some of the vocabulary in the program.

We also suggest that you consider using one or more products in the MECC series *Storybook Weaver* to enhance the writing process. Many of the objects and scenes in these products are designed to work with the themes of zoos, exhibits, and animals. You can use the *Storybook Weaver* products to create illustrated stories with a wide range of objects that correspond to animals, exhibits, zoos, and endangered animals that are mentioned in *Littletown Zoo*.

Topics for Persuasive Compositions

Any closure discussion questions can be used for writing topics as well. In addition, there are more general topics that students may be interested in writing about. The topics develop some of the vocabulary in the program and suggest rhetorical styles that might be paired with one of the readings found in the program (see pages 62-63).

Research Topics

You may also want to assign to students research reports that connect to the themes developed in *Littletown Zoo*. A number of sample research topics that students may find interesting—involving zoos, exhibits, and animals—are given on pages 64-65. As a teacher, you may already have research assignments in mind that tie in to a unit on zoos or animals.

Other Resources

Books. We offer a number of fiction and non-fiction reading suggestions (see pages 66-67).

USE IN AN INSTRUCTIONAL SETTING (continued)

Sample Lesson Plan: Introducing *Littletown Zoo*

Preparation

| | |
|----------------|--|
| Time Required: | One class period; time varies depending on class |
| Group Size: | Full class |
| Equipment: | Overhead projector or blackboard |
| Materials: | Give each student copies of the handouts "Semantic Map" and "Frames Worksheet," found on pages 50 and 51 |

Procedure

1. Provide a brief overview of zoos and animals.
2. Ask students to work individually for several minutes, writing down any ideas they have for "Exhibits" on the "Semantic Map." To help them, you may want to use some of the anticipatory discussion questions.
3. When time is up, ask students to share their ideas with the class. Use an overhead projector or blackboard to add students' ideas to your copy of the "Semantic Map."
4. Repeat this process for each of the concepts in the "Semantic Map." Call on different students to provide examples.
5. Next, ask students to turn to the "Frames Worksheet." Tell them that they will be using a computer program in which they will choose the best animals for an exhibit in the *Littletown Zoo*.
6. Give your students several minutes to jot down some of their ideas about what they know, what they need to know, and what would be interesting to know.
7. After filling out the "Frames Worksheet," ask students to share their ideas while you fill out a similar worksheet on the overhead projector or the blackboard.
8. Use several of the "Anticipatory Discussion Questions" on page 56 to prompt further thinking and discussion.

USE IN AN INSTRUCTIONAL SETTING (continued)

Sample Lesson Plan: Introducing *Littletown Zoo II*

Preparation

- Time Required: One class period (minimum); amount varies depending on class
- Group Size: Full class
- Equipment: One computer, preferably connected to a large-screen projector; *Littletown Zoo* program with settings at three or four tasks
- Materials: Provide each student or group with copies of the handout "Step-by-Step Guide" on page 49

Procedure

1. Start the *Littletown Zoo* program and explain the main menu selections: Zoo Office (starts the game), Instructions, Information, Honor Exhibits (displays high scores), and Quit.
2. Select (2) Instructions and read through the instructions with the students.
3. Select (1) Zoo Office to begin the program. Read through the screens, describing the scenario and selecting the first task.
4. Explain that there are four options on the main interaction screen: Tasks to select tasks to answer, Go to access documents and other information, Help, and Answer to answer tasks and select animals.
5. Select Tasks. Explain the task areas and how to select a task.
6. Select Go. Step through the menu and show your students the different types of readings and other information available.
7. Find the answer to the first task and use Answer to demonstrate how to select an answer.
8. As you go through the program, you may want to use some of the "Processing Discussion Questions" (see page 57) to lead students to think about the task, to predict likely locations for answers to the tasks, and to evaluate possible answers to the task.
9. After finishing the tasks, demonstrate selecting animals. Unless you have changed the settings, remind students that they will each encounter different animals and different exhibits.
10. When you have finished demonstrating the program, students will be ready to begin on their own—as individuals at a computer, as pairs of students working together on one computer, or as groups of students working together as a team.

USE IN AN INSTRUCTIONAL SETTING (continued)

Sample Lesson Plan: Using *Littletown Zoo* with Individual Students

Preparation

| | |
|-----------------------|---|
| Time Required: | One class period (minimum); amount varies depending on program settings and student reading ability (probably will require two or more class periods) |
| Group Size: | Full class |
| Equipment: | One computer for each student |
| Materials: | Provide each student or group with copies of the handouts "Step-by-Step Guide," found on page 49, and "Animal Chart," found on page 52 |

Procedure

1. Let students begin by entering their names. Be sure their names are spelled correctly, since they will identify student records.
2. Let students select their tasks and readings. Student progress is automatically saved to the student record. If students do not finish before the end of the class period, they can start where they left off when they begin at a later time. In order to save their place, they must exit in a normal method by returning to the main menu and selecting Quit. If they simply turn off their machines without exiting, their places will not be saved.
3. From time to time, call a "time out" to ask one of the "Processing Discussion Questions" (questions 1-6).
4. As students finish their tasks, you may want to use other "Processing Discussion Questions" (questions 7-8).
5. As students select animals, you may want to use other "Processing Discussion Questions" (questions 9-13).
6. When your students have finished, you may want to use other "Processing Discussion Questions" (questions 14-18).

USE IN AN INSTRUCTIONAL SETTING (continued)

Sample Lesson Plan: Using *Littletown Zoo* with Cooperative-Learning Groups

Note: This activity involves students in cooperative-learning groups at the computer. It provides general guidelines for structuring the interaction of students, determining the size of the groups, and assigning roles to students. In addition, it suggests ways for teachers to interact with the group.

This activity was designed with these cooperative-learning principles:

- The group must work as a team and complete a common task to achieve a common goal.
- Each member of a team has a designated responsibility that must be carried out to help the team meet its common goal.
- Team members support each other by offering explanations, asking questions, providing feedback, sharing information, and encouraging each other to learn and participate in the discussions.
- The team continually monitors how well they are functioning as a team.

Familiarity with these principles and the techniques that support them will enhance the effectiveness of this lesson. For a thorough discussion of cooperative learning principles, consult the works of David and Roger Johnson, Spencer Kagan, and Robert Slavin.

Preparation

| | |
|----------------|--|
| Time Required: | One class period (minimum); depending on program settings and abilities, it could take two or more periods |
| Group Size: | Groups of three students (it is helpful to have a good reader in each group) |
| Equipment: | One computer for each group |
| Materials: | Provide each student or group with copies of the handouts "Step-by-Step Guide," found on page 49; "Animal Chart," found on page 52; and "Descriptions," found on page 54 |

USE IN AN INSTRUCTIONAL SETTING (continued)

Procedure

1. Review the program with the entire class, explaining the various options.
2. Tell students that they will be working in cooperative groups. Point out that they have three main tasks to accomplish as they use this program.
 - Choose tasks that will help them find out the most about the assigned exhibit and the animals that could go in it.
 - Look through the readings to find the answers to the tasks.
 - Using the information gathered, select the three best animals for a specific exhibit at the zoo.
3. Assign students to teams of three. Assign roles within each team. Take a few minutes to explain the nature of each role and give examples of behaviors that students may exhibit in that role.

For example, the student whose role is to ask for explanations encourages group members to give reasons. One way to do this is to ask a question such as "John, can you tell us why you think this is the best animal?"

Point out to students that they will be switching roles from time to time so that everyone has a turn in each of the roles.

- | | |
|---------------------|---|
| <i>Zoo Director</i> | <ul style="list-style-type: none">• Operates the keyboard.• Keeps track of information about the physical characteristics of the exhibit: size, climate, etc.• Makes sure everyone agrees on which tasks to do and which information to read about. |
| <i>Zoo Guide</i> | <ul style="list-style-type: none">• Praises group members for contributing ideas, asking questions, and actively participating in the group.• Keeps track of information about what zoo visitors say about certain animals.• Asks group members to give reasons for choosing animals. |
| <i>Zoo Curator</i> | <ul style="list-style-type: none">• Keeps track of information about what zookeepers say about certain animals.• Makes sure everyone participates by asking questions and sharing ideas.• Summarizes ideas expressed by the group before a decision is made. |

USE IN AN INSTRUCTIONAL SETTING (continued)

4. Tell students that you will circulate among them to observe how they work as a team. You will be watching to see how everyone gives ideas, asks questions, and makes suggestions on what to do next.
5. Allow students to work through the program. Circulate among teams and observe how they are working. Record how many times you see the members of the team asking questions or suggesting ideas for what to do next.
6. At least ten minutes before the class ends, have students discuss among themselves how well their group worked. Some ideas they may want to think about include naming two things they did well and one thing they need to do better next time. Also, provide feedback on how you saw the groups working.

USE IN AN INSTRUCTIONAL SETTING (continued)

Sample Lesson Plan: Discussing *Littletown Zoo* in Small Groups

Preparation

- Time Required:** One class period (minimum); depending on program settings and abilities, it could take two or more periods
- Group Size:** Groups of two or three students
- Equipment:** None
- Materials:** Provide each student or group with copies of the handout "Animal Chart" on page 52

Procedure

1. After students have played through *Littletown Zoo*, you may want them to discuss certain questions in small groups.
2. Have each team meet to rank their selections by value. Which was their most valuable, or most important, animal? Have them answer the question "Which animals did you feel were the best?" Allow ten minutes or so to discuss and select their top three animals.
3. When all teams have finished their discussions, summarize the top animals on a blackboard chart. Analyze the qualities that the top animals share.
4. Select one or two other closure discussion questions such as "Which of your animals did you feel was least desirable?" and have students again discuss it in their teams. Allow another ten minutes.
5. When all teams have finished their discussions, summarize the least-desirable animals on a blackboard chart. Analyze the qualities that these desirable animals share.
6. Finally, have teams create imaginary animals using the "Animal Form" handout (see page 53). Allow ten minutes or so for each member of the team to create one.

USE IN AN INSTRUCTIONAL SETTING (continued)

Sample Lesson Plan: Summarizing the *Littletown Zoo* Experience

Preparation

| | |
|-----------------------|--|
| Time Required: | One class period (minimum) |
| Group Size: | Groups of two, three, or four students |
| Equipment: | Blackboard |
| Materials: | Make sure students have their filled-out "Animal Charts" (found on page 52) and provide each student or group with copies of the handout "Animal Form" on page 53 |

Procedure

1. Select some "Closure Discussion Questions" about the animals (questions 3-6, 16, 17, 21-28).
2. Select several "Closure Discussion Questions" about exhibits (questions 2, 7-11, 18-20, 29).
3. Create a new exhibit not found in the Littletown Zoo (for example, one based on animal species such as monkeys or cats, or a different habitat such as a lake, an ocean, or the Australian Outback).
4. Have students fill out the "Animal Form" to create their own animals.
5. Have students present their made-up animals and tell why the animals should be placed in the exhibit. Hold an election for the best student-made animals. You may wish to discuss the students' selections.
6. Select one of the "Closure Discussion Questions" (questions 13, 15, 30) or use one of the "Topics for Persuasive Compositions" as a debate topic.

USE IN AN INSTRUCTIONAL SETTING (continued)

Sample Lesson Plan: Extending the *Littletown Zoo* Experience—Writing

Preparation

- Time Required: One class period (minimum)
- Group Size: Whole class
- Equipment: Blackboard, paper and pencils, or computers and word processors

Procedure

1. Select writing topics from “Topics for Imaginative Compositions,” “Topics for Persuasive Compositions,” or “Research Topics.” Assign topics to students and allow in-class writing or preparation time.
2. Allow students to select writing topics from “Topics for Imaginative Compositions,” “Topics for Persuasive Compositions,” or “Research Topics.” Allow in-class writing or preparation time.
3. When students have finished a first draft, assign another student to read the essay and suggest changes. Have students revise their first drafts. Then, collect the second drafts.
4. Use *Storybook Weaver* products to write illustrated animal stories.
5. Share the best student writing, publish a zoo newsletter, or have students read their compositions aloud to the class.

USE IN AN INSTRUCTIONAL SETTING (continued)

Sample Lesson Plan: Extending the *Littletown Zoo* Experience—Reading

Preparation

Time Required: One class period (minimum)

Group Size: Whole class

Equipment: Blackboard, paper and pencils, or computers and word processors

Procedure

1. Arrange to take your students to the media center or library in your school to select any of the fiction or non-fiction readings for third- and fourth-grade students suggested in "Related Books for Third- and Fourth-Grade Students" (see pages 66-67) or choose other related materials.
2. Allow ample reading time and arrange for an oral or written book report.

THINKING SKILLS

Using Computer Software in a Thinking Skills Environment

Teachers are faced with the tremendous task of preparing today's students for tomorrow's world—a world characterized by change in an information-rich environment. Thinking skills are at the heart of this thriving, changing environment, for these are the behaviors that students must practice in school and continue to apply for the rest of their lives.

It wasn't long ago that thinking skills were considered exclusive to gifted and enrichment classes. Today, however, thinking skills are viewed as an essential component for the total school curriculum. Developing these skills is the goal of each individual discipline. Many educators have, in fact, come to view thinking skills as perhaps the most basic of the basic skills because they facilitate the acquisition of all other learning.

At MECC, we view computer software as a vehicle for fostering students' thinking. Our products are curriculum-based, with thinking skills as a thread within subject areas. This provides an environment with many opportunities for teachers to highlight and reinforce thinking skills.

We believe teachers play a critical role in determining the classroom environment for thinking. Naturally, many teachers have taught thinking skills and will continue to do so, using a variety of strategies. Our commitment is to provide teachers with the materials that help them do their job well: high-quality software that promotes the application of thinking skills.

Our approach to thinking skills reflects what both research and effective classroom practice has shown. That is, the approach that is most effective and appeals to most teachers is one that infuses thinking skills into existing content areas. Educators have told us they are interested in thinking skills as a method used in the instruction of a topic, not as a subject. By infusing thinking skills into existing content areas, MECC products integrate easily into teachers' curricula while providing a rich environment for students to practice skillful thinking. We strive to meet the challenge that teachers face in promoting the skills that students need.

If schools are to integrate the teaching of thinking with regular academic instruction, they need to know which aspects of thinking to teach. After exploring the research that has been done in the area of thinking skills, MECC has chosen as a base the *Dimensions of Thinking* framework, published in 1988 by the Association of Supervision and Curriculum Development (ASCD). We chose this framework because it pulls together research and models from a variety of sources and brings the theory to the classroom level, applying it to that environment. In addition to knowing the subject matter that is covered, teachers now can see the specific thinking skills that are challenged within a product.

This section highlights ways in which teachers can use *Littletown Zoo* to promote thinking skills with their students. The following pages provide examples of how *Littletown Zoo* relates to the ASCD core thinking skills framework. Although only one thinking skill per category is correlated with a specific part of the product, each skill can be practiced on many levels and in many aspects of the product.

We realize the importance of thinking skills in the curriculum. We believe it is essential that students be taught thinking skills so that they have the tools to understand the past, deal with the present, and prepare for the future. We are confident that you will find *Littletown Zoo* of considerable value in your classroom as you foster student thinking.

THINKING SKILLS (continued)

A Framework for Thinking

The components used in thinking are referred to as *core thinking skills*. This framework defines those skills that appear in the repertoire of the model learner. Each skill selected is documented in research as important to learning or thinking, is teachable, and is valued by educators as important for students to learn.

The core skills of the ASCD framework are listed and defined below with examples of applications within *Littletown Zoo*. The skills are neither discrete nor hierarchical. In fact, individual skills draw on other skills and can be used repeatedly in the thinking process. The selected examples are not exhaustive but highlight ways in which these thinking skills are used in *Littletown Zoo*.

Source: *Dimensions of Thinking*, Association for Supervision and Curriculum Development (ASCD), 1988.

| Definition of Core Thinking Skills Categories | Core Thinking Skills Components | <i>Littletown Zoo</i> Application |
|---|--|--|
| Focusing Skills allow students to attend to selected pieces of information and ignore others. Focusing occurs when students sense a problem, an issue, or a lack of meaning. | Focusing Skills <ul style="list-style-type: none"> • Defining Problems • Setting Goals | In <i>Littletown Zoo</i> , students select fact-finding tasks and focus the search for information. By selecting tasks, they set personal reading goals and establish a clear purpose for reading. |
| Information-Gathering Skills involve obtaining information and clarifying issues and meanings through inquiry. | Information-Gathering Skills <ul style="list-style-type: none"> • Observing • Formulating Questions | As students gather information about zoo animals and their exhibits, they choose readings where they think information can be found. |
| Remembering Skills are those activities or strategies that students consciously engage in to store and retrieve information from long-term memory. Activating prior knowledge falls under this category. | Remembering Skills <ul style="list-style-type: none"> • Encoding • Recalling | When selecting animals for an exhibit, students try to recall animal attributes that they have read about in other places. |

THINKING SKILLS (continued)

| Definition of Core Thinking Skills Categories | Core Thinking Skills Components | <i>Littletown Zoo</i> Application |
|---|---|--|
| Organizing Skills are used to arrange information so that it can be understood or presented more effectively. | Organizing Skills <ul style="list-style-type: none"> • Comparing • Classifying • Ordering • Representing | As students complete their tasks in <i>Littletown Zoo</i> , they respond to tasks that require finding, ordering, and classifying information, such as selecting sequence clue words. |
| Analyzing Skills are used to clarify existing information by examining parts and relationships. Through analysis, students identify and distinguish components, attributes, claims, assumptions, or reasoning. | Analyzing Skills <ul style="list-style-type: none"> • Identifying Attributes and Components • Identifying Relationships and Patterns • Identifying Main Ideas • Identifying Errors | As students select and read documents identifying aspects of zoos, animals, and exhibits, as well as the details of animals, they analyze outcomes to determine the value of an animal's attributes. |
| Generating Skills involve using the students' prior knowledge to add information beyond what is given. Connections between new ideas and prior knowledge are made as new information and ideas are recast into new structures. | Generating Skills <ul style="list-style-type: none"> • Inferring • Predicting • Elaborating | <i>Littletown Zoo</i> allows students to draw inferences based on their reading. Students can predict the location of information and respond to discussion questions and a variety of composing activities. |
| Integrating Skills involve putting together the relevant parts or aspects of a solution, understanding, principle, or composition and incorporating this integrated information into a new understanding. | Integrating Skills <ul style="list-style-type: none"> • Summarizing • Restructuring | As students use <i>Littletown Zoo</i> , they integrate animal information by selecting those they think are best for their exhibit. They can also restructure animal information located in data cards, letters, and descriptions as they construct an animal profile. |
| Evaluating Skills involve assessing the reasonableness and quality of ideas. | Evaluating Skills <ul style="list-style-type: none"> • Establishing Criteria • Verifying | Students verify their selections by comparing the verbal outcome with the point totals. Students can also verify their hypothesis about animal selections by trying again with new animals and exhibits. |

NOTES

Appendices

Step-By-Step Guide

Step 1: Choose a task that you like.

Use the Task menu to select a task area. Use the arrow keys to move and the Return Key to select.



Main Idea
Zoo Information
Word Clues
Think About
Around the Zoo
Zoo Words
The New Animals

Main Idea tasks include the important ideas in readings.

Zoo Information tasks are about facts and information.

Word Clues tasks are about different kinds of words.

Think About tasks make inferences and draw conclusions.

Around the Zoo tasks ask you where things are located.

Zoo Words tasks are about vocabulary words.

The New Animals tasks include animal information.

Step 2: Choose a reading where you think the information is located.

Use the Go menu to select readings.

Use the arrow keys to move and the Return Key to select.



Data Cards
Letters
Records
Documents
Maps/Charts
Glossary

Data Cards show animal information.

Letters show a visitor's opinion of an animal.

Records have zookeeper's information.

Documents cover zoos and animals.

Maps/Charts has four illustrations.

Glossary has definitions of vocabulary words.



Step 3: Answer your task when you think you've found it.

Choose Answer and look at the answer choices.

Use the arrow keys to move and the Return Key to select.

Repeat Steps 1, 2, and 3 until you have finished all your tasks.

Step 4: Choose your candidates.

When you finish all your tasks, choose the candidates you think are best.

Use the arrow keys to move.

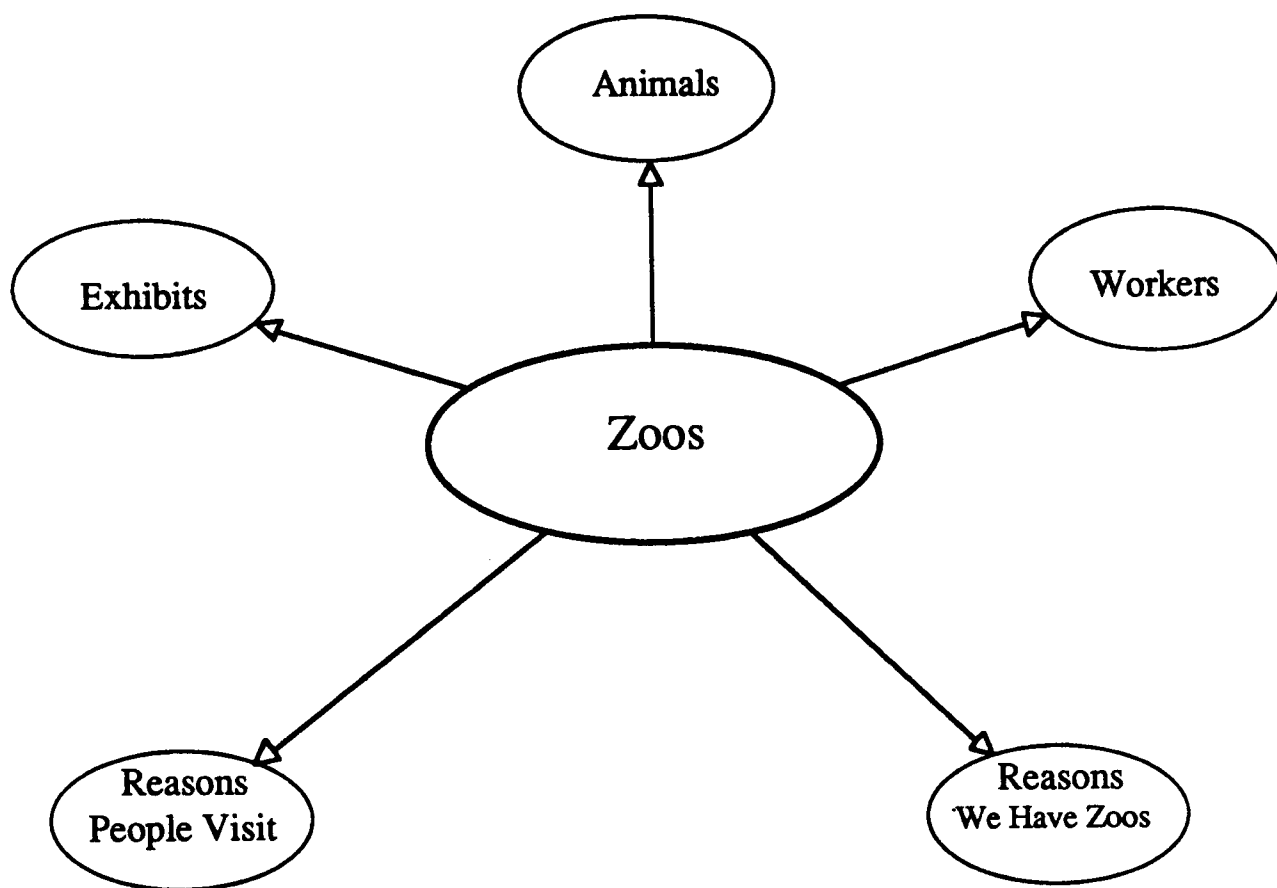
Use the Return Key to select.

Data Cards

NAME: Wally
ANIMAL: Mountain lion
DESCRIPTION: A large, endangered, gold-colored cat with a long tail
CURRENT ZOO: Keystone State Zoo
AGE: 16 months
HEALTH: Poor



Semantic Map



Frames Worksheet

You are the Assistant Director of the Littetown Zoo. You will choose three animals to add to an exhibit.

What I Know:

What I Need To Know:

What Would Be Interesting To Know:

Animal Chart

| | |
|--|-------|
| Name: | _____ |
| Animal: | _____ |
| Description: | _____ |
| Current zoo: | _____ |
| Zookeeper: | _____ |
| Age: | _____ |
| Health: | _____ |
| Way the animal usually acts: | _____ |
| Treat: | _____ |
| Food animal doesn't like: | _____ |
| What animal did to this food: | _____ |
| What animal does when zookeeper arrives: | _____ |
| Visitor recommends/rejects: | _____ |

| | |
|--|-------|
| Name: | _____ |
| Animal: | _____ |
| Description: | _____ |
| Current zoo: | _____ |
| Zookeeper: | _____ |
| Age: | _____ |
| Health: | _____ |
| Way the animal usually acts: | _____ |
| Treat: | _____ |
| Food animal doesn't like: | _____ |
| What animal did to this food: | _____ |
| What animal does when zookeeper arrives: | _____ |
| Visitor recommends/rejects: | _____ |

Animal Form



Animal Form



Name: _____

Animal: _____

Health: _____

Description: _____

Visitor's Notes: _____



Animal Form



Name: _____





Animal: _____

Health: _____

Description: _____

Visitor's Notes: _____

Descriptions

| Data Cards | Letters | Records | | |
|---|---|---|----------------|---|
|  |  |  | Animals |  Documents |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ | <input type="checkbox"/> Zoo Goals |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ | <input type="checkbox"/> Zoo History |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ | <input type="checkbox"/> Zoo Jobs |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ | <input type="checkbox"/> Animal Types |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ | <input type="checkbox"/> Endangered! |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ | <input type="checkbox"/> New Animals |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ | <input type="checkbox"/> Zoo Exhibits |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ | <input type="checkbox"/> Choosing Animals |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ | <input type="checkbox"/> Littletown Farm |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ | <input type="checkbox"/> The Rain Forest |
| | | | | <input type="checkbox"/> The Savannah |
| | | | | <input type="checkbox"/> The Woodland |

Notes:

Tasks:

Animals Used in *Littletown Zoo*

| Savannah | Woodland | Rain Forest | Littletown Farm |
|------------------|-------------------|------------------|-----------------|
| African elephant | wolverine | red uakari | Asian elephant |
| hippopotamus | badger | tree porcupine | moose |
| black rhinoceros | raccoon | woolly monkey | cow |
| giraffe | red wolf | howler monkey | Arabian horse |
| eland | striped skunk | pygmy marmoset | mule |
| Grevy's zebra | Virginia opossum | three-toed sloth | wild yak |
| greater kudu | bobcat | two-toed sloth | donkey |
| oryx | red fox | squirrel monkey | okapi |
| wildebeest | river otter | paca | Grevy's zebra |
| lion | lynx | peccary | pig |
| serval | beaver | giant otter | reindeer |
| sitatunga | porcupine | giant anteater | llama |
| aardvark | gray squirrel | dwarf mongoose | giant armadillo |
| spotted hyena | red squirrel | silky marmoset | sheepdog |
| impala | mink | mouse opossum | goat |
| cheetah | cottontail rabbit | agouti | cocker spaniel |
| chimpanzee | snowshoe hare | kinkajou | porcupine |
| sable antelope | mountain goat | coatimundi | woolly monkey |
| reedbuck | black bear | owl monkey | Persian cat |
| duikers | mountain lion | giant armadillo | tabby cat |
| colobus monkey | whitetail deer | capybara | striped skunk |
| wart hog | grizzly bear | margay | rabbit |
| mona monkey | bison | jaguarundi | guinea pig |
| bat-eared fox | elk | tayra | bobcat |
| meerkat | caribou | tapir | springbok |

Anticipatory Discussion Questions

1. Where are some places people can go to see animals?
2. Do you like to watch animals? Why?
3. Have you ever visited a zoo?
4. What kinds of animals have you seen at the zoo?
5. Were the animals at the zoo in cages?
6. What is a zoo? Why are there zoos?
7. What are the most unusual animals that are kept in zoos?
8. What kinds of people work in zoos?
9. What kinds of things do zoo workers do?
10. What would be some good animals to keep in a zoo?
11. Which animals are too boring to put in zoos?
12. Are there some animals that you would be afraid of seeing in a zoo?
13. How many animals should be kept in a zoo?
14. If a zoo worker wrote to you about an animal, what would you probably learn?
15. What kinds of information would you probably find in a description of a zoo animal?
16. What is a zookeeper? What kinds of work do zookeepers do?
17. What is a zoo exhibit?
18. If you were a zoo director, what kinds of animals would you keep in your zoo exhibits?
19. What is probably the most popular kind of zoo animal? Why do you think that is so?
20. How would you plan a zoo? Which animals would you put together?

Processing Discussion Questions

1. What kinds of tasks do you find in the “Main Idea” topic area?
2. What kinds of tasks do you find in the “Zoo Information” topic area?
3. What kinds of tasks are there in the “Word Clues” topic area?
4. What kinds of tasks do you find in the “All the Facts” topic area?
5. What kinds of tasks are there in the “Think About” topic area?
6. What kinds of tasks are there in the “Around the Zoo” topic area?
7. What kinds of tasks help you to find out about the animals?
8. Now that you’ve finished your tasks, do you think you have enough information to make good animal choices?
9. Now that you’ve selected your animals, were you able to make good selections?
10. Were there certain kinds of animals that you wanted to select but couldn’t find? How did you make the next-best selection?
11. Did finding out about the exhibit change your opinion of any of the animals?
12. Did you have enough information about each animal to make a good selection?
13. What other kinds of information would be helpful to know?
14. Now that you have your scores, do you agree with the scores? Are there animals that should have received higher points?
15. Why would one animal be better than the others?
16. Are there any surprises in your scores? Did you think you’d do better or worse?
17. What kinds of animals would you pick for this exhibit next time?
18. What would you do differently next time?
19. What kinds of documents are important to read? What do the Letters and Records tell that isn’t in the Data Cards?
20. Did you find out anything that was surprising or interesting?

Closure Discussion Questions

1. The next time you play, what kinds of information will be important for you?
2. Which type of exhibit is better—one with a variety of animals that live in a specific habitat or one with one kind of animal such as monkeys?
3. Which of your animals did you feel was the least desirable?
4. Which do you think is more important for animals—its health or its size?
5. Which do you think is more important for animals—a good recommendation or good health?
6. Which do you think is better for animals—being the right size or having good recommendations?
7. Which do you think would be better—the Savannah Exhibit or the Woodland Exhibit?
8. Which do you think would be better—the Rain Forest Exhibit or Littletown Farm (the children's exhibit)?
9. If the Littletown Zoo could have only two exhibits, which would you rather have—the Savannah and the Rain Forest Exhibits; the Woodland Exhibit and Littletown Farm; or the Rain Forest Exhibit and Littletown Farm?
10. If you didn't have time to see all the exhibits, which would you rather not visit—the Rain Forest Exhibit or Littletown Farm?
11. Which do you think would be more popular—the Savannah Exhibit or the Woodland Exhibit?
12. One of the documents mentioned different zoo jobs. Which would be more fun to you—being a curator or being an animal doctor?
13. It costs a lot of money to run a zoo. Do you think it's a good idea to spend money on zoos? If not, what should a city spend the money on?
14. One of the documents discussed zoo directors. Do you think you would like to be a zoo director? Why or why not?
15. Which kind of exhibit would be most valuable for a zoo director who wanted to get lots of new visitors—an indoor exhibit or an outdoor exhibit?
16. Of your animals, which one seemed to be the most interesting?
17. Did any of your animals seem to be dangerous?

Closure Discussion Questions (continued)

18. For which exhibit would it be the most difficult to find animals?
19. If you were a zookeeper, in which exhibit would you like to work?
20. How many different kinds of animals should be in an exhibit? Do you think there can be too many animals in an exhibit?
21. One of the documents talked about animal families. Which of those families seems the most interesting?
22. The zoo is making a commercial about its new animals. Which animal that you read about should be in the commercial?
23. You might have read something about an animal that seemed silly. What was it?
24. You might have read something about an animal that seemed important. What was it?
25. You might have read something about an animal that was a good reason not to choose it. What was it?
26. What was the most interesting thing you found out about your animals?
27. Which of your animals seemed like the best one for your exhibit?
28. Did any of your animals seem unusual or unlikely?
29. If you were going to design your own exhibit, what kind would it be?
30. Sometimes people will have their own animals that they charge people money to see. Is this a good idea?

Topics for Imaginative Compositions

1. Pick an animal. Imagine it just arrived at the zoo. What is its first day like?
2. You are the zoo director at the Littletown Zoo. You have just been given more land to expand the zoo. What kind of exhibit would you add?
3. You are visiting the Littletown Zoo. What is the best part of your day?
4. Imagine you are visiting your grandparents. You went to a local zoo and saw something incredible. You are talking to your mother or father on the phone. What would you tell them?
5. You have been hired to be the director of a new zoo that hasn't been built yet. Describe the biggest exhibit.
6. You are a zoo doctor at the largest zoo in the world. You performed an incredible operation that made a very sick animal get well. What was the animal and what did you do?
7. You are building a new exhibit for the monkeys. You want it to be a fun home for the monkeys. You also want it to be a fun place for visitors. What will it look like?
8. You are the director of the world's smallest zoo, the Insect Zoo. How small is it? Where is it? Which insects are in it?
9. Lots of people like to visit reptile exhibits. Why would you want to see a reptile exhibit?
10. You have just discovered a large troop of endangered gorillas while on a safari. How did you find them? What will you do?
11. You are studying endangered woolly monkeys. One of them just did something you've never seen a monkey do before. What did the monkey do?
12. You are traveling in a South American rain forest. You have just discovered an animal that no one has ever seen before. Describe the animal.
13. You are the zookeeper at Jungle Land. The cheetah has just escaped. How will you catch it?
14. You are helping with the bird show at the city zoo. You have trained a bird to do an amazing trick. What is the trick? How did you train the bird?
15. You are making a TV show about how important zoos are. What will your TV show be like? What will you say?
16. You are the head of a team researching the nighttime activities of the bald eagle. What are the other members of your team like? What are they doing?

Topics for Imaginative Compositions (continued)

17. You are the only person in an Arctic Exhibit building. Something strange begins to happen. A penguin begins to talk. What does it say? How do you answer?
18. You are the curator for endangered animals at the International Zoo. All but one animal in a species has died. The last animal of the species is sick and cannot be saved. Just before the animal dies, it tells you a message. You are to tell the message to everyone. What is the message?
19. While visiting the zoo, you learn that the old elephant was captured in Africa and brought to the zoo many years ago. Write a story in which you are the elephant and you are telling the story of your capture and trip to the zoo.
20. Pretend you are an animal in the Littletown Zoo. What kind of animal are you? How does it feel to be an animal in the zoo?
21. You are the director of the Smallville Zoo. Your zoo has just been named the "Most Improved Zoo of the Year." You have made several changes to the zoo to make it better. What was the best change you made?
22. You have been hired as a teacher at the Littletown Zoo. You are going to plan a zoo field trip for third- and fourth-grade students. What will children do on this field trip?
23. You are preparing for an animal-gathering expedition to Australia. Which animals are you looking for? How will you capture them?
24. You are a curator at the Littletown Zoo. You think you have an idea for a new exhibit. Tell us about it.
25. You are in charge of a very large zoo. There has been a budget cut. You have to close an exhibit and give its animals to another zoo. Which exhibit will you close? Why that one?
26. You are on vacation in Washington, D.C. You are at the National Zoo. You get separated from your family and get lost. What happens next? How do you find your family?
27. You are a scientist and have discovered how to create animals that are made of parts of other animals, such as elephant tusks and monkey tails. You have just made a very interesting new animal. Describe it. What will you call it?
28. Use one of the *Storybook Weaver* programs to create an illustrated story about a day at the Littletown Zoo.
29. Use one of the *Storybook Weaver* programs to tell about a zoo you have visited.

Topics for Persuasive Compositions

1. Should people keep animals in zoos? Give reasons why or why not.
2. What is the best kind of zoo exhibit? Describe it. Explain why it is best.
3. What is the most important kind of animal to keep in the zoo—endangered animals, dangerous animals, friendly animals, or domestic animals? Explain your choice and give several reasons.
4. What is most important when choosing an animal—its name, its type, its size, or its health? Explain by giving several reasons.
5. What is the most important goal of zoos—being an enjoyable place for people to visit, teaching people about animals, studying animals, or saving animals from extinction? Explain your choice and give several reasons.
6. Look at the document “New Animals.” If you were a zoo director and needed a new elephant, how would you get it? Explain your choice and give several reasons.
7. Compare the Savannah Exhibit and the Littletown Farm Exhibit. How are they the same? How are they different?
8. Compare the Woodland Exhibit and the Rain Forest Exhibit. How are they the same? How are they different?
9. Compare a zoo exhibit with cages to a zoo exhibit that is built like a natural habitat. How are they the same? How are they different?
10. Compare amphibians and reptiles. List how they are the same and how they are different.
11. Compare a good Rain Forest Exhibit animal with a good Woodland Exhibit animal. In which ways are they alike? In which ways are they different?
12. Should zoos make exhibits look like animals’ natural habitats? Why or why not?
13. Look at the document “Zoo Jobs.” Which job at the zoo would be the hardest? Explain why you would or would not want this job.
14. Explain the three ways to get a new animal for an exhibit. Tell what is good and bad about each way.
15. Explain the steps that are followed to choose an animal for an exhibit. Which is most important? Why?
16. Explain what makes a good zoo director.

Topics for Persuasive Compositions (continued)

17. Tell about the different types of animals. Which kind do you like the best?
18. Why would people get bored at a zoo? What could they do to prevent this?
19. What would be some dangers of visiting a zoo? In which ways do zoos protect visitors?
20. How could an animal get from its old zoo to the Littletown Zoo? What could go wrong on its trip?
21. Imagine you have seven brothers and sisters. Would it be better to visit the zoo with the whole family or by yourself? Why?
22. Which would be better to add to a zoo—an Arctic Exhibit or an Australian Exhibit? Why?
23. Look at the document “Zoo Exhibits.” Should a zoo exhibit for monkeys have trees made of concrete or should it have real trees? Why?
24. Which animals would be the most boring in a zoo? Why?
25. What are some examples of animals that should not be placed in a children’s exhibit? Why not?
26. What kinds of animals would be most interesting in a zoo? Give some examples.
27. Would it be better to try to see every animal on your trip to the zoo or only look at some? Why?
28. What types of animals that weren’t listed would you put in the Savannah Exhibit?
29. What types of animals that weren’t listed would you put in the Rain Forest Exhibit?
30. What types of animals that weren’t listed would you put in the Woodland Exhibit?
31. Design a new zoo for your town. Tell why the town should spend the money and use the space to build it.
32. Design a new exhibit for a zoo. Tell why the zoo should spend the money and use the space to build it.

Research Topics

1. Write about the savannah habitat in Africa.
2. Write about the woodland habitat in North America.
3. Write about the rain forest habitat in South America.
4. Write about the Arctic habitat in Antarctica.
5. Write about the habitat in Australia.
6. Write about the desert habitat in the Middle East.
7. Write a report on the animals of Madagascar.
8. Write a report on pandas.
9. Write a report on koala bears.
10. Write a report on apes.
11. Write a report on monkeys.
12. Write a report on Pere David's deer.
13. Write a report on lizards.
14. Write a report on snakes.
15. Write a report on elephants.
16. Write a report on endangered animals.
17. Write a report on extinct animals.
18. Write a report on the National Zoo in Washington, D.C.
19. Write a report on the San Diego Zoo.
20. Write a report on the first United States Zoo in Philadelphia, Pennsylvania.
21. Write a report on the Brookfield Zoo in Chicago, Illinois.
22. Write a report on zoos in your state.
23. Plan a trip to a zoo near your town or city.

Research Topics (continued)

24. Research the costs of taking a family of four to a zoo near your town or city. Include costs for parking, admissions, food, and souvenirs. How could you make the trip less expensive?
25. Write a report on how zoos make exhibits for animals that usually sleep during the day, such as owls.
26. Find articles about zoo animals in magazines in the library. Write about one animal.
27. Research and write a report on how animals are trained to perform in shows.
28. Research and write a report about zoo expeditions in the early 1900s.
29. Interview a zoo director at a zoo near your town or city. Record and write up the interview.
30. Interview someone who has visited several zoos. Record and write up the interview.
31. Find out what kinds of special activities and exhibits are happening at a local zoo.
32. Ask a veterinarian about the most interesting animal he or she has ever treated. Write a report about it.
33. Design an Arctic zoo exhibit.
34. Design a zoo exhibit for monkeys.
35. Find out more about animals in your state that are endangered.
36. Find out more about the World Wildlife Federation.
37. Find out more about the National Audubon Society.
38. Find out more about the National Geographic Society.

Related Books for Third- and Fourth-Grade Students

Fiction

Harriet and the Crocodiles. Martin Waddell. Atlantic Monthly Press, 1982.

Mitzi and the Elephants. Barbara Williams. Dutton, 1985.

Morgan's Zoo. James How. Atheneum, 1984.

Non-fiction

Aardvarks, Disembark! Ann Jonal. Greenwillow, 1990.

About Animals. Childcraft: The How and Why Library, Vol. 5. World Book, Inc., 1985.

Animals and Where They Live. John Feltwell. Grosset & Dunlap, 1988.

Animals in Danger: Trying to Save Our Wildlife. National Geographic Society, 1978.

Animals of the Temperate Forests. Sylvia A. Johnson. Lerner Publications Co., 1976.

Animals of the Tropical Forests. Sylvia A. Johnson. Lerner Publications Co., 1976.

Animals of the Mountains. Sylvia A. Johnson. Lerner Publications Co., 1976.

Armadillos, Anteaters, and Sloths. Jane E. Hartman. Holiday House, 1980.

Behind the Scenes at the Zoo. David Paige. Albert Whitman & Co., 1978.

Careers at a Zoo. Mark Lerner. Lerner Publications Co., 1980.

Endangered Animals. National Wildlife Federation, 1989.

Endangered Wildlife. Martin Banks. Rourke Enterprises, Inc., 1988.

Handtalk Zoo. George Ancona and Mary Beth Miller. Four Winds, 1989.

Inside the Zoo. Morris Weeks, Jr. Simon and Schuster, 1970.

Let's Visit a Super Zoo. Georganne Irvine. Troll Associates, 1990.

The New Zoos. Madelyn Klein Anderson. Franklin Watts, 1987.

Related Books for Third- and Fourth-Grade Students (continued)

Rare and Unusual Animals. Nina Leen. Holt, Rinehart and Winston of Canada, 1981.

The Tigers of Como Zoo. Edythe Records Warner. The Viking Press, 1961.

What Happens at the Zoo. Judith E. Rinard. National Geographic Society, 1984.

Wild Animals of Africa. Beatrice Brown Borden. Random House, 1982.

Zoos. Miriam Moss. Bookwright, 1987.

Zoos and Game Reserves. Miles Barton. Gloucester Press, 1988.

Zoos Without Cages. Judith E. Rinard. National Geographic Society, 1981.

Bibliography on Zoos and Animals

Behind the Scenes at the Zoo. Georgg Zappler. Doubleday & Co., 1977.

Book of Mammals. Vols. I and II. National Geographic Society, 1981.

Endangered Species. Christopher Lampton. Franklin Watts, 1988.

Familiar Mammals: North America. The National Audubon Society. Alfred A. Knopf, 1988.

Management of Wild Mammals in Captivity. Lee S. Crandall. The University of Chicago Press, 1964.

Maybe You Belong in a Zoo! Zoo and Aquarium Careers. Karen O'Conner. Dodd, Mead & Company, 1982.

North American Mammals. Barbara Burn. Bonanza Books, 1984.

The Stationary Ark. Gerald Durrell. Simon and Schuster, 1976.

Zoo Animals. Donald F. Hoffmeister. Golden Press, 1967.

Is it okay for schools to copy software?

A. No, without the publisher's permission, it's not okay for schools to copy software. Software is protected by copyright law, which says that you can't make copies without the permission of the copyright holder. Copyright law is written this way to protect software programmers and publishers and the investment they've made in their products. The creative teams that develop the software — programmers, writers, graphic artists, content specialists, and others — all deserve fair compensation. Without the protection given by our copyright laws, they would be unable to produce the educational, entertainment and productivity software that adds so much to our daily lives.

2 What exactly does the law say about copying software?


A. The law says that it is illegal to make or distribute copies of copyrighted material, including software, without authorization. If you do so, this is piracy, and you may face not only a civil suit, but also fines of up to \$100,000 and jail terms of up to 5 years.

So I'm never allowed to copy software for any reason?

A. If a backup copy was not included in the box with your original disk(s), you are permitted to make one copy in order to have both a working copy and a backup copy of the program. Copyright law prohibits you from making additional copies of the software for any other reason without the permission of the software company. If the publisher has authorized any exceptions to the copyright law, they will be stated in the license agreements that accompany all software products.

Q. But aren't schools allowed to make copies for educational purposes?

A. No. Like individuals and corporations, educational institutions are bound by the copyright law. Because of their unique position of influence, schools have a particular obligation to abide by the copyright law and educate students about their own responsibilities when using software. Just as it would be wrong to buy one textbook and photocopy it for use by many students, it is wrong for a school to duplicate software without the authorization of the publisher. This means that educators cannot make unauthorized copies for their students, either to use in school or to take home.

 *At our school, we share programs all the time. We assume this must be okay, since the school purchased the software in the first place.*

A. Many educators are not aware of how the copyright law applies to them. Without the publisher's authorization to make copies, your school needs to purchase as many copies of a program as you will use. However, many software firms do offer special sales arrangements to schools. These include reduced priced lab packs (a number

of programs sold together) and site licenses (arrangements which permit schools to copy for a specific location at a fixed price). **Because these arrangements vary from publisher to publisher, it is essential that you read and understand the license agreement for each program before making any copies.**

We're planning to install a network for our students. How do we know how many copies of software we'll need to purchase?

A. Remember that the installation of a network does not change your obligations with regard to the copyright law. When purchasing software for a network, be sure to ask the publisher what types of licensing arrangements are available for networks. Some software publishers allow schools to purchase a network license that authorizes the school to install stand-alone software on a network. In addition, many software publishers create special network versions that license the program to be run on the file server of a network. Because some publishers limit the number of workstations that are permitted to legally access the software on the network, it is very important to check the license agreement for any restrictions that may apply.

I've read the license agreement for one of the software packages purchased by our school. What if I'm not sure that I understand the arrangement correctly?

A. If you have trouble understanding the license agreement, help is available. Your school district's media or computer specialist may be able to answer your questions. In addition, you can always contact the software publisher and ask for a clarification of the license agreement as it applies to your school. Finally, if you still have questions, contact the Software Publishers Association for more information about software and the copyright law.

I'll bet most of the people who copy software don't even know they're breaking the law.

A. Because the software industry is relatively new and because copying software is so easy, many people are either unaware of the laws governing software use or choose to ignore them. It is the responsibility of each and every software user to read and understand the license agreements of the products they use and to be sure that their software use complies with copyright law. See what you can do to initiate a software use policy statement in your school that everyone respects. Finally, as an educator, help set an example for your students that responsible computer users should be "software legal."

If you have any questions about how the copyright law applies to you and your school, please contact the **Software Publishers Association** at **202-452-1600**.



Bibliography on Reading Comprehension

- Armbruster, Anderson, and Ostertag. "Teaching Text Structure to Improve Reading and Writing." *The Reading Teacher* (November 1989): 130-137.
- Blanton, Wood, and Moorman. "The Role of Purpose in Reading Instruction." *The Reading Teacher* (March 1990): 486-493.
- Davis and McPherson. "Story Map Instruction: A Road Map for Reading Comprehension." *The Reading Teacher* (December 1989): 232-240.
- Duffy, Gerald and Laura Roehler. "Teaching Reading Skills as Strategies." *The Reading Teacher* (January 1987): 414-418.
- Haggard, Martha Rapp. "Developing Critical Thinking with the Directed Reading-Thinking Activity." *The Reading Teacher* (February 1988): 526-533.
- Henk, William. "Reading Assessments of the Future: Toward Precision Diagnosis." *The Reading Teacher* (May 1987): 860-870.
- International Reading Association. *New Directions in Reading Instruction*, 1988. ISBN 0-87207-796-9.
- Reinking, David. "Misconceptions About Reading and Software Development." *Computers and the Language Arts* (December/January 1988-89): 27-29.
- Richgels, McGee, and Slaton. "Teaching Expository Text Structure in Reading and Writing." *Children's Comprehension of Text* (ed. K. Denise Muth). Newark, Delaware: International Reading Association, 1989.
- Schmitt, Maribeth Cassidy. "A Questionnaire to Measure Children's Awareness of Strategic Reading Processes." *The Reading Teacher* (March 1990): 454-461.
- Slater, Wayne and Michael Graves. "Research on Expository Text: Implications for Teachers." *Children's Comprehension of Text* (ed. K. Denise Muth). Newark, Delaware: International Reading Association, 1989.
- Uttero, Debbra. "Activating Comprehension Through Cooperative Learning." *The Reading Teacher* (January 1988): 390-395.

NOTES

CREDITS

The MECC team responsible for the development of *Littletown Zoo* includes Eileen Nannen, John Ojanen, Mike Palmquist, Dee Dee Roedel, and John Wlazlo.

Preliminary research and planning were completed by the Language Arts Team, including Sheila Dols, Dave Duffee, and Jean Sharp. Thanks to Miryam Acevedo-Bouchard for helping with the original lesson plans.

Classroom testing:

Seth R. Digel
Smethport Area Elementary School
Smethport, Pennsylvania

Estelle Winiecki
Valentine Hills Elementary School
Arden Hills, Minnesota

Karen Schwiebert
Northrop Elementary School
Minneapolis, Minnesota

MECC extends a special thanks to the following educators and their students for their assistance in the research and development of this product:

Bev Ramolae and Sue Pemberton
Technology Learning Campus
Robbinsdale, Minnesota

Kathy Nickelson
O.H. Anderson Elementary School
Mahtomedi, Minnesota

Larry Eickhoff and Ron Lehman
Island Lake Elementary School
Shoreview, Minnesota

Dave Craft
Thomas Jefferson Elementary School
Minneapolis, Minnesota

Aspacia Cox
Wilder Contemporary Elementary School
Minneapolis, MN

Thanks also to the Minnesota Zoo Education Office for their valuable research assistance.

TO THE READER:

MECC has made every effort to ensure the instructional and technical quality of this courseware package. Your comments—as user or reviewer—are valued and will be included in any future revision of the product. Please address comments to:

MECC Software Development
3490 Lexington Avenue North
St. Paul, MN 55126-8097

MECC SERVICES

Since its inception in 1973, MECC has remained committed to serving education by listening and responding to the diverse and changing needs of students and educators. MECC promotes effective learning by developing high-quality, curriculum-based software in all major subject areas and by making them affordable through a variety of purchase plans. Approximately one-third of the nation's school districts have joined MECC through Direct License memberships, permitting them to duplicate MECC software products on site. MECC products are also available through authorized dealers nationwide or can be ordered directly from the MECC catalog. In addition to software products, MECC offers instructional management, emerging technology products, teacher training and development, and conferences. An academic research partnership, the MECC Center for the Study of Educational Technology, conducts a variety of studies on the impact of technology on education. MECC respects the challenges faced by modern educators and pledges to remain on the cutting edge of technology.

- **MECC Educational Computing Catalog**
A catalog containing descriptions of instructional computing courseware as well as training and planning materials is published annually and distributed at no charge. To request a catalog, write or call MECC Customer Relations.
- **MECC Etc. Catalog**
A catalog featuring "Emerging Technologies in the Classroom," such as laser videodisc players and LCD computer projection systems, is published twice a year and distributed at no charge. To request a catalog, write or call MECC Customer Relations.
- **MECC Memberships**
Educational institutions may become MECC Members, which qualifies them to obtain MECC courseware and training at specially reduced prices. To learn more about MECC Memberships, write or call MECC Marketing.
- **Training and Staff Development Programs**
MECC conducts educational computing workshops for educators throughout the United States. For information on workshop schedules or to arrange a special training activity, write or call MECC.
- **MECC Network Newsletter**
MECC publishes a newsletter during the school year that focuses on MECC activities, services, and products. To be added to the mailing list, simply write or call to indicate your interest.

- **Technical Support**
If you have any problems using MECC software:
 - 1) make note of the *name* and *version number* of the product;
 - 2) note the *brand* and *model* of the equipment involved, as well as the type of *printer card* used if the problem concerns a printer; and
 - 3) write or call Technical Support to describe the problem.

For information on all the above items, use the MECC General Information telephone number: 612/481-3500.

MECC
3490 Lexington Avenue North
St. Paul, MN 55126-8097

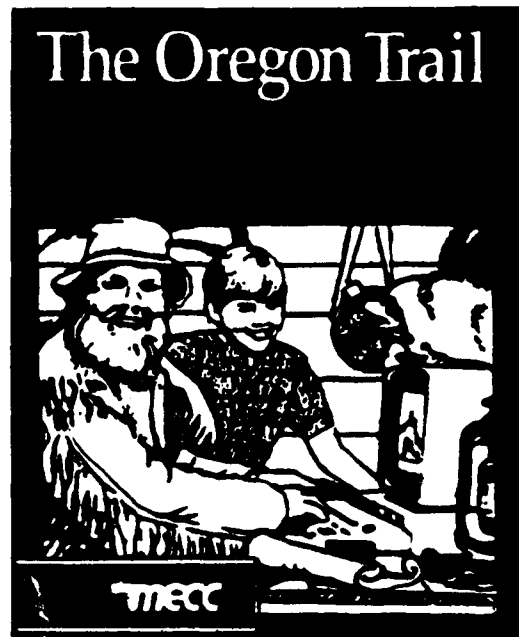
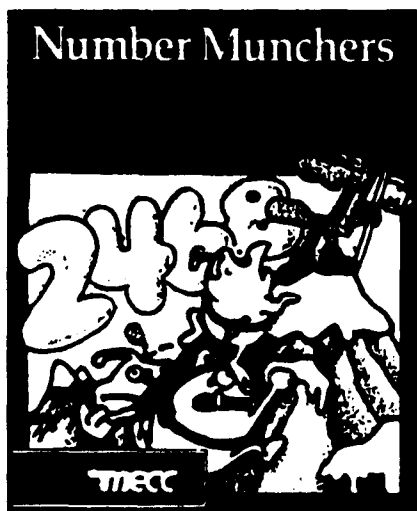
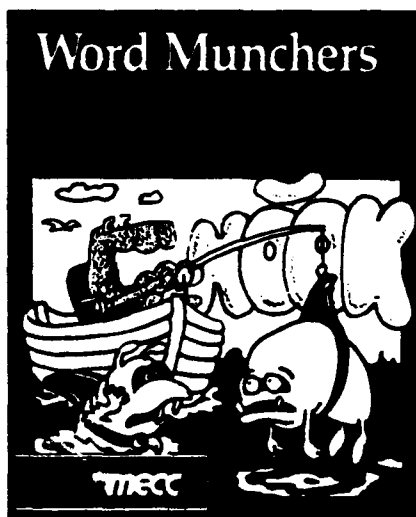
MECC's Home Software is proof that fun and learning go hand-in-hand.

Software that parents trust and kids enjoy.

MECC's Home Software is more than just a lot of fun and games. It's a special collection of some of MECC's best-selling and best-loved products. Kids and adults alike find these packages both entertaining and challenging. And they each have a variety of difficulty levels so people of all ages and abilities can use them. That means MECC software can be used again and again for continual enjoyment. Many kids already use these widely acclaimed packages in schools, and more and more parents are discovering them for their home software libraries. The experts agree, too, that MECC software is among the best—as evidenced by numerous awards over the years.

Software for Apple, Macintosh, and MS-DOS.

MECC's Home Software has a variety of products for different computer platforms, including new versions of *Word Munchers* and *Number Munchers* for the Macintosh and MS-DOS. And MECC plans to create more software for these popular platforms. Now, whether you own an Apple, Macintosh, or MS-DOS computer, MECC has the perfect home software for you.



Software that's popular in and out of school.

Teachers now have software they can recommend with confidence to the parents of their students: MECC Home Software. And parents aren't the only ones who are discovering its rewards. School libraries, parent/teacher organizations, and community centers find it perfect for their activities, too.

Order your MECC Home Software today!

To order products from MECC's Home Software Library, see your local dealer or call MECC at 800/228-3504, ext. 527, or 612/481-3500, ext. 527. In Canada call 800/663-9772. In Minnesota call 800/782-0032, ext. 527.